



UNIVERSITY OF
ILLINOIS LIBRARY
AT URBANA-CHAMPAIGN
STACKS

NOTICE: Return or renew all Library Materials! The *Minimum Fee* for each Lost Book is \$50.00.

The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.
To renew call Telephone Center, 333-8400


UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

APR 28 1993

NOV 03 1994

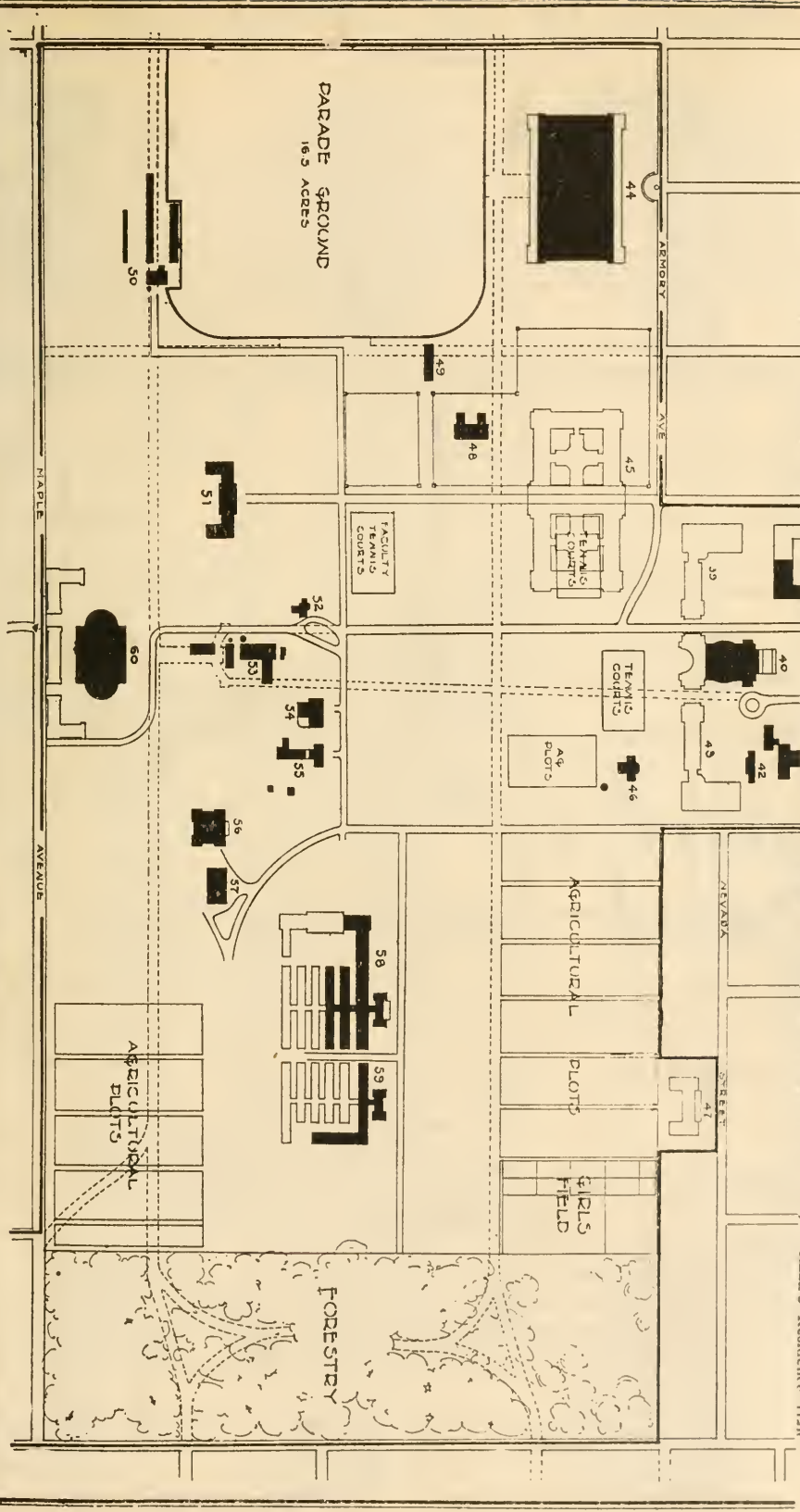
OCT 21 1994

MAY 09 2003



Digitized by the Internet Archive
in 2011 with funding from
University of Illinois Urbana-Champaign

- 19. Ceramics Laboratory
- 20. Chemistry Laboratory
- 21. Commerce Building
- 22. Dairy Barn
- 23. President's House
- 24. Physics Laboratory
- 25. Power House—New
- 26. Power House—Old
- 27. Electrical Engineering Laboratory
- 28. Power House—New
- 29. Ceramics Laboratory
- 30. Mechanical Engineering Laboratory
- 31. Music Building
- 32. Armory—New
- 33. Site, New Library
- 34. Astronomical Observatory
- 35. Woman's Residence Hall



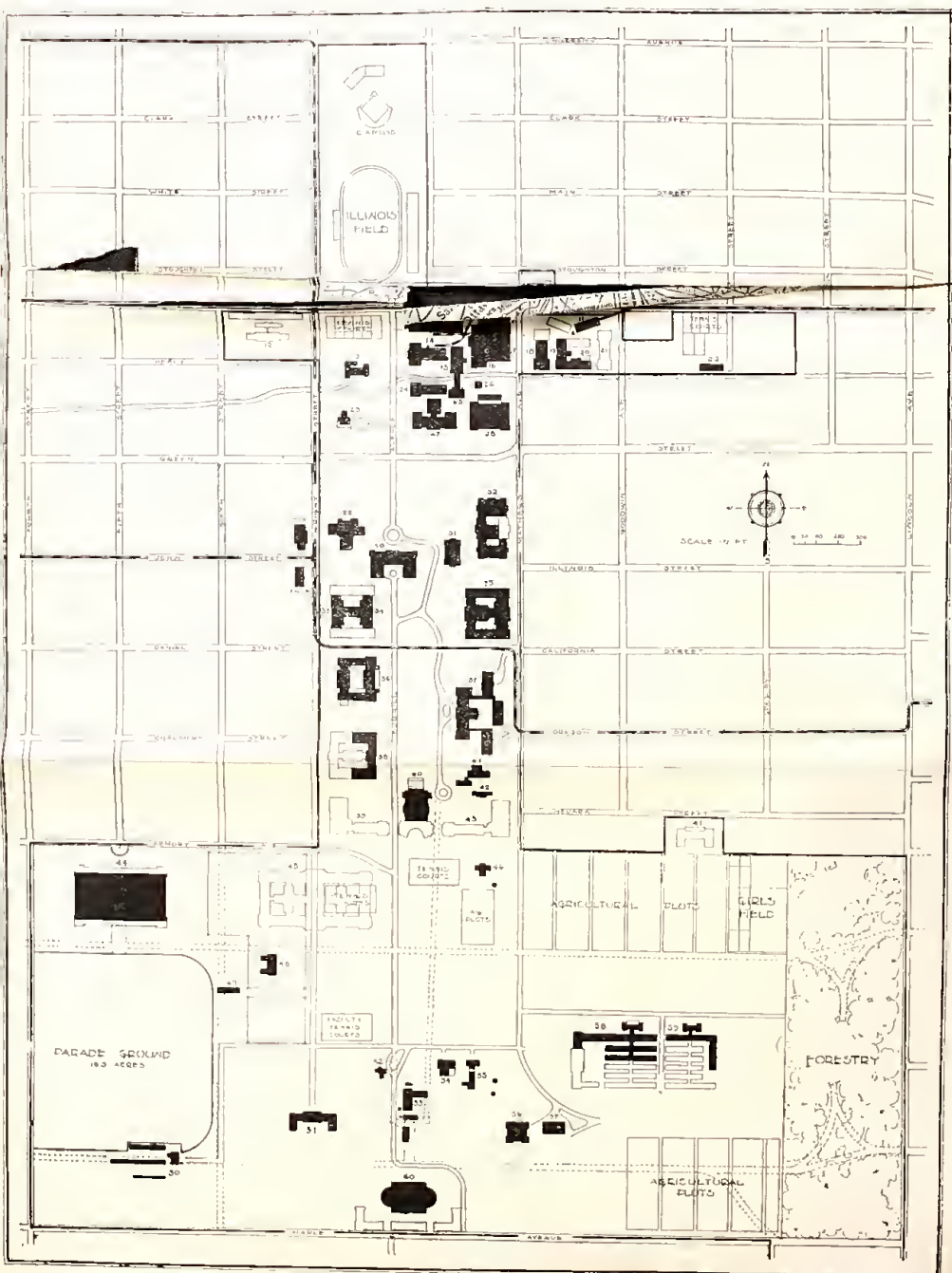
UNIVERSITY OF ILLINOIS CAMPUS, 1915

KEY. ALPHABETICAL

- | | | | |
|------------|-----------------------------------|----|--------------------------------------|
| 28 | Administration Building | 68 | Implement Barn |
| 27 | Agricultural Building | 6 | Laboratory Annex |
| 27 | Agonomy Building | 21 | Law Building |
| 27 | Agonomy Greenhouse | 29 | Library |
| 28 | Alumni Greenory Memorial Building | 48 | Library - new (site) |
| 24 | Applied Mechanics Laboratory | 19 | Lincoln Hall |
| 44 | Armory-Rec | 11 | Locomotive Engineering Laboratory |
| 44 | Armory-Hall | 6 | Mechanical Engineering Laboratory |
| 44 | Astronomical Observatory | 8 | Metal Shops |
| 44 | Auditorium | 19 | Mining Laboratory |
| 44 | Beef Cattle Building | 48 | Music Building (site) |
| 44 | Bird Greenhouses | 48 | Natural History Hall |
| 21 | Ceramics Building (site) | 48 | Observatory-Astronomical |
| 16, 20 | Ceramics Laboratory | 28 | Physics Laboratory |
| 44 | Chemical Laboratory | 48 | Power House |
| 44 | Commerce Building | 16 | Power House-Old |
| 44 | Dairy Barn | 16 | President's House |
| 44 | Dairy Barn | 28 | Pumping Station |
| 44 | Education, School of (site) | 48 | Reidence |
| 44 | Electrical Engineering Laboratory | 28 | Reidence |
| 44 | Engineering Hall | 48 | Reidence |
| 44 | Farm Machinery Building | 48 | Smith Memorial Music Building (site) |
| 44 | Feeding Sheds | 48 | Suite Entomologist's Laboratory |
| 44 | Flower Culture Greenhouses | 60 | Stock Pavilion |
| 44 | Forge Shops | 28 | Storage Warehouse |
| 44 | Foodery | 18 | Transportation Hall |
| 17, 41, 44 | Greenhouses | 30 | University Hall |
| 44 | Gregory Memorial Building (site) | 30 | Vivarium Buildings (site) |
| 44 | Guadalupe Men's | 26 | Woman's Building |
| 44 | Horse Barn | 48 | Woman's Residence Hall (site) |
| 44 | Horticulture Building | 5 | Wood Shop |
| 44 | Horticulture Greenhouses | | |

KEY, NUMERICAL

- | | |
|---------------------------------------|--------------------------------------|
| 1. Gymnasium—Men's | 22. Natural History Hall |
| 2. Armory—Old | 23. Administration Building |
| 3. Site, School of Education | 24. Commerce Building |
| 4. Laboratorv—Acoust | 25. Chemistry Laboratory |
| 5. Wood Shop | 26. Women's Building |
| 6. Foundry | 27. Agriculture Building |
| 7. Botany Greenhouses | 28. Lincoln Hall |
| 8. Metal Shops | 29. Site, Alumni Gregory Men. Bldg. |
| 9. Chemistry Laboratory | 30. Auditorium |
| 10. Power House—New | 31. Greenhouse—Agronomy |
| 11. Mechanical Engineering Laboratory | 32. Entomology Laboratory |
| 12. Site, Viscum Buildings | 33. Site, Tina Weeden Smith Memorial |
| 13. Greenhouse—Department of Grounds | 34. Music Building |
| 14. Mechanical Engineering Laboratory | 41. Armory—New |
| 15. Power House—Old | 42. Site, New Library |
| 16. Ceramics Laboratory | 43. Anatomical Observatory |
| 17. Mechanical Engineering Laboratory | 44. Site, Natural Science Hall |
| 18. Transportation Building | 45. Horticulture Building |
| 19. Mining Laboratory | 46. Military Office |
| 20. Ceramics Laboratory | 47. Feeding Site |
| 21. Site, New Ceramics Building | 51. Beef Cattle Building |
| 22. Storage Warehouse | 48. Residence |
| 23. President's House | 49. Dairy Barn |
| 24. Applied Mechanics Laboratory | 50. Horse Barn |
| 25. Pumping Station | 51. Implement Barn |
| 26. Service Building | 52. Farm Mechanics Building |
| 27. Engineering Hall | 57. Agronomy Building |
| 28. Physics Laboratory | 58. Horticulture Greenhouses |
| 29. Library | 59. Horticulture Greenhouses |
| 30. University Hall | 60. Stock Pavilion |
| 31. Law Building | |



ENVIRONS OF THE CAMPUS, 1915

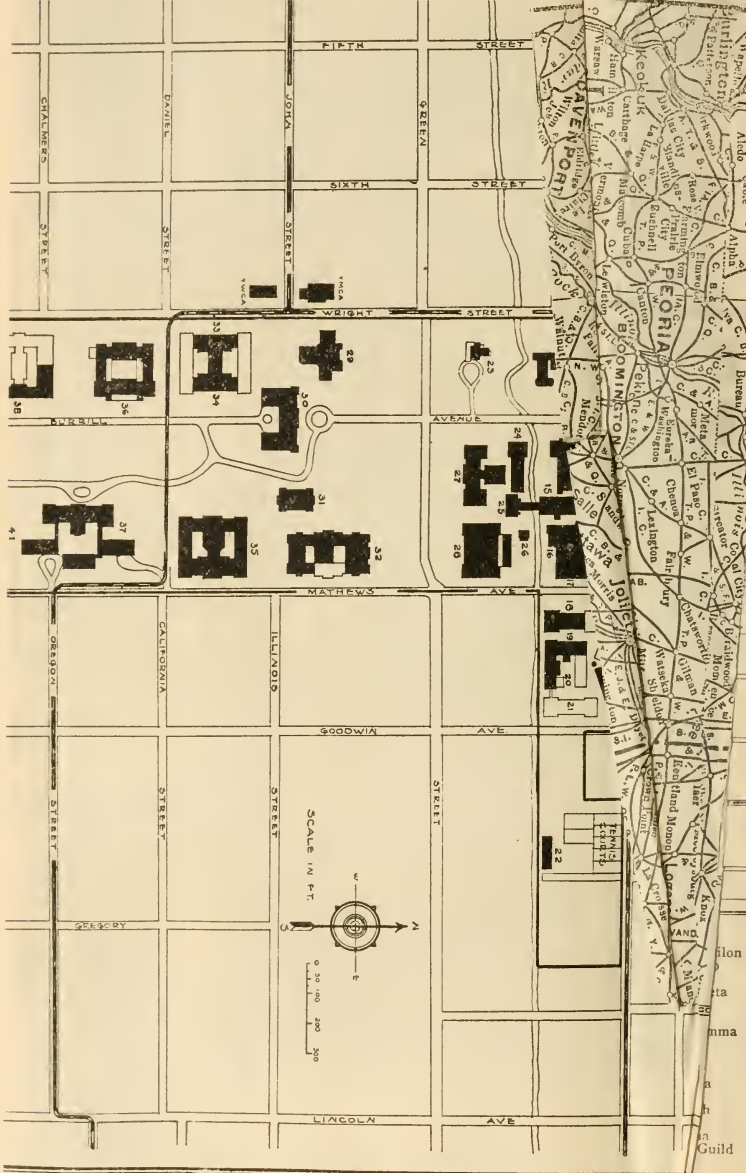
KEY, ALPHABETICAL

57. Acaea	64. Chi Psi	61. Kappa Kappa Gamma	55. Sigma Alpha Epsilon
6. Acanthus	57. Chinese Club	31. Kappa Sigma	34. Sigma Chi
66. Achuth	4. Church of Christ	40. Sigma Kappa	30. Sigma Kappa
52. Alpha Chi Delta	28. College Hall Dormitory	11. Phi Alpha Delta	18. Sigma Nu
41. Alpha Chi Omega	70. Congregational Guild	68. Phi Delta Phi	14. Sigma Psi
9. Alpha Delta Phi	58. Cosmopolitan Club	2. Phi Delta Theta	29. Tau Beta Pi
29. Alpha Delta Pi	43. Delta Kappa Epsilon	19. Gamma Delta	35. Tau Kappa Epsilon
31. Alpha Omicron Psi	21. Delta Omega	27. Phi Kappa	44. Triangles
26. Alpha Rho Chi	2. Delta Tau Delta	65. Phi Kappa Sigma	67. Trinity M. E. Church
44. Alpha Sigma Phi	13. Delta Upsilon	20. Phi Sigma Kappa	36. University Club
40. Beta Theta Pi	50. Gamma Alpha	17. Phi Omicron	46. Y. W. C. A.
3. Burnham Hospital	3. German M. E. Church	45. Presbyterian Church	68. Zeta Beta Tau
212. Chi Beta	12. Illinois Union	17. Presbyterian Hall	15. Zeta Psi
40. Chi Omega	18. Iota	19. Psi Upsilon	
24. Chi Phi	58. Kappa Alpha Theta	1. St. Peter's Evang. Church	



KEY, NUMERICAL

1. St. Peter's Evang. Church	19. Theta Delta Chi	27. Chinese Club	55. Sigma Alpha Epsilon
2. German M. E. Church	20. Phi Sigma Kappa	28. Chi Delta	57. Acaea
3. Burnham Hospital	21. Delta Omega	30. Delta Gamma	58. Cosmopolitan Club
4. Church of Christ	22. Chi Beta	40. Chi Omega	61. Kappa Sigma
5. Trinity M. E. Church	23. College Hall Dormitory	41. Alpha Chi Omega	65. Gamma Delta
6. Acanthus	24. Chi Phi	42. Delta Kappa Epsilon	68. Phi Delta Phi
66. Achuth	26. Alpha Rho Chi	43. Gamma Delta	69. Phi Kappa Gamma
52. Alpha Chi Delta	27. Phi Kappa	44. Alpha Tau Omega	70. Congregational Guild
41. Alpha Chi Omega	28. Tau Beta Pi	45. Presbyterian Church	
9. Alpha Delta Phi	29. Y. W. C. A.	46. Presbyterian Hall	
29. Alpha Delta Pi	30. Alpha Delta Pi	47. Triangles	
31. Alpha Omicron Psi	31. Sigma Kappa	48. Beta Theta Pi	
26. Alpha Rho Chi	32. Delta Tau Delta	49. Phi Beta Phi	
44. Alpha Sigma Phi	33. Iota	50. Kappa Sigma	
40. Beta Theta Pi	34. Sigma Chi	51. Alpha Chi Sigma	
3. Burnham Hospital	35. Y. M. C. A.	52. Alpha Chi Delta	
212. Chi Beta	36. Alpha Sigma Phi	53. Gamma Phi Beta	
40. Chi Omega	37. University Club		
24. Chi Phi			



University of Illinois

ANNUAL REGISTER

1914-1915

General Announcements, 1915-1916

Faculty and Courses, 1914-1915

Students, 1914-1915

URBANA

PUBLISHED BY THE UNIVERSITY

FEBRUARY, 1915

Journal of the

Board of Directors

1891-1892



CONTENTS

UNIVERSITY CALENDAR	5
BOARD OF TRUSTEES.....	9
ADVISORY BOARDS	11
FACULTY	13
PART I. GENERAL INFORMATION.....	41
Location	43
Equipment	50
Administration	65
Admission	69
Graduation: First Degrees	92
Lectures and Other General Exercises.....	98
Associations, Societies, and Clubs.....	109
Undergraduate Scholarships	113
Fees and Expenses.....	118
PART II. THE COLLEGES AND SCHOOLS.....	123
The College of Liberal Arts and Sciences.....	125
The College of Engineering	151
The College of Agriculture	175
The Graduate School	187
The Library School	195
The School of Music	198
The School of Education	201
The School of Railway Engineering and Administration.....	204
Military Science	205
Physical Training	207
The Summer Session	208
The College of Law	213
The College of Medicine	218
The College of Dentistry	246
The School of Pharmacy	256
PART III. GENERAL DESCRIPTION OF COURSES.....	261
PART IV. UNIVERSITY EXTENSION	417
PART V. AUXILIARY SCIENTIFIC BUREAUS.....	423
PART VI. LIST OF STUDENTS, DEGREES, ETC.	
Students, 1914-15	439
Degrees Conferred, 1914.....	522
Fellows and Scholars.....	536
Honors	538
Directory of Alumni Associations.....	552
INDEXES	555

CALENDAR 1914, 1915, 1916

1914

JULY						
S	M	T	W	T	F	S
...	...	...	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	...

AUGUST						
S	M	T	W	T	F	S
...	...	...	...	...	1	...
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

SEPTEMBER						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	...	...	...	...	...	...

OCTOBER						
S	M	T	W	T	F	S
...	...	...	...	...	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	...	...	...	...	...	...

NOVEMBER						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	...	...	...	...	...	...

DECEMBER						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

1915

JANUARY						
S	M	T	W	T	F	S
...	...	...	...	...	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	...	...	...	...	...	...

FEBRUARY						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
...

MARCH						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

APRIL						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	...	...	...	...	...	...

MAY						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

JUNE						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	...	...	...	...	...	...

JULY						
S	M	T	W	T	F	S
...	...	...	...	...	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	...	...	...	...	...	...

AUGUST						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

SEPTEMBER						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	...	...	...	...	...	...

OCTOBER						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

NOVEMBER						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	...	...	...	...	...	...

DECEMBER						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

1916

JANUARY						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

FEBRUARY						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
...

MARCH						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

APRIL						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	...	...	...	...	...	...

MAY						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	...	...	...	...	...

JUNE						
S	M	T	W	T	F	S
...	...	...	...	...	...	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	...	...	...	...	...	...

THE UNIVERSITY CALENDAR

1914-1915-1916

FIRST SEMESTER, 1914-1915

Sept. 8, Tues.	Quarterly meeting of the Board of Trustees
Sept. 14-18, Mon. to Fri.	Entrance examinations
Sept. 21, Mon.	Registration, School of Pharmacy
Sept. 21-25, Mon. to Fri.	Entrance examinations, departments in Chicago
SEPT. 21, 22, MON., TUES.	REGISTRATION DAYS
Sept. 23, Wed., 8 a. m.	Instruction begun
4 p. m.	Freshman convocation
Sept. 28, Mon. to Thurs.	Examinations for the removal of conditions, College of Medicine
Oct. 1, Thurs.	Registration, Colleges of Medicine and Den- tistry
Oct. 5, Mon., 4 p. m.	Senate meeting
Oct. 7, Wed.	Registration closes, College of Medicine
Oct. 10, Sat.	Registration closes, College of Dentistry
Nov. 2, Mon., 5 p. m.	Latest day for announcement of subjects for all undergraduate and graduate theses
Nov. 13-15, Fri. to Sun.	Alumni Homecoming
Nov. 19-21, Thurs. to Sat.	High school conference
Nov. 23-25, Mon. to Wed.	Civil Engineering Inspection Trip
Nov. 23, Mon.	St. Louis Symphony Orchestra
Nov. 25, Wed., 12 m.	Thanksgiving recess begun
Nov. 30, Mon., 12 m.	Instruction resumed
Dec. 3, Thurs.	Illinois Day
Dec. 7, Mon., 4 p. m.	Senate meeting
Dec. 8, Tues.	Quarterly meeting of the Board of Trustees
Dec. 11, Fri.	Junior promenade
Dec. 15, Tues., 8 p. m.	Christmas concert
Dec. 19, Sat.	Holiday recess begun, School of Pharmacy
Dec. 22, Tues., 5 p. m.	Holiday recess begun
Dec. 24, Thurs.	Holiday recess begun, College of Dentistry
Dec. 31, Thurs., 5 p. m.	Latest day for submission of outlines of theses by candidates for professional degrees in engineering

1915

Jan. 2, Sat.	Instruction resumed, College of Dentistry
Jan. 4, Mon., 12 m.	Instruction resumed
Jan. 8, Fri.	Sophomore cotillion
Jan. 11-23	Short course in Highway Engineering

Jan. 18-30	Short course in Household Science
Jan. 19, Tues.	New York Symphony Orchestra
Jan. 28, Thurs.	Semester examinations begun
Feb. 1, Mon., 4 p. m.	Senate meeting
	Second semester begun, College of Dentistry
Feb. 4, Thurs.	Semester examinations ended

SECOND SEMESTER, 1914-1915

FEB. 8, 9, MON., TUES.	REGISTRATION DAYS
Feb. 9, Tues.	Post-exam. Jubilee
Feb. 10, Wed., 8 a. m.	Instruction begun
Feb. 12, Fri.	Lincoln Day
Feb. 19, Fri.	Military ball
March 2, Tues.	University Day
March 6, Sat.	Annual band concert
March 9, Tues.	Annual meeting of the Board of Trustees
March 23, Tues.	Chicago Symphony Orchestra
April 1, Thurs., 12 m. 5 p. m.	Easter recess begun Latest day for filing of completed theses by candidates for professional degrees in engi- neering
April 5, Mon., 4 p. m.	Senate meeting
April 6, Tues., 12 m.	Instruction resumed
April 15, Wed.	Term for candidates for graduate in pharmacy closed
April 25-May 2.	Spring recess, pharmaceutical chemist course
April 28, Wed.	Commencement, School of Pharmacy
April 29, Thurs.	Commencement, School of Pharmacy
May 14, Fri. evening	Interscholastic oratorical contest
May 13-15, Thurs. to Sat.	Public school art exhibit
May 15, Sat. 12 m.	Interscholastic athletic meet Latest day for receipt by the Dean of the Grad- uate School of certified copies of doctors' theses
May, between 15 and 31	Hazelton prize drill Annual inspection Company competitive drill
May 24-29.	Final examinations, College of Dentistry
May 29, Sat.	Military Day
June 1, Tues., 12 m.	Latest day for acceptance of undergraduate theses Latest day for receipt by the Dean of the Graduate School of certified copies of mas- ters' theses
June 3, Thurs.	Final examinations begun
June 5, Sat.	Class day and Alumni meeting, College of Medicine
June 7, Mon., 4 p. m.	Senate meeting
June 8, Tues.	Quarterly meeting of the Board of Trustees
June. 10, Thurs.	Final examinations ended

June 11, Fri.	Term for candidates for pharmaceutical chem- ist closes
June 13, Sun.	Baccalaureate address
June 14, Mon.	Class Day Senior ball
June 15, Tues.	Alumni Day
JUNE 16, WED.	FORTY-FOURTH ANNUAL COMMENCEMENT Commencement, College of Medicine

SUMMER SESSION, 1915

JUNE 21, MON.	REGISTRATION DAY
June 22, Tues.	Instruction begun
July 10, 17, 24, 31, Aug. 7	Entrance examinations
Aug. 12, 13, Thurs., Fri.	Final examinations

FIRST SEMESTER, 1915-1916

Sept. 14, Tues.	Quarterly meeting of the Board of Trustees
Sept. 13-17, Mon. to Fri.	Entrance examinations
Sept. 20, Mon.	Registration, School of Pharmacy
SEPT. 20, 21, MON., TUES.	REGISTRATION DAYS
Sept. 22, Wed., 8 a. m.	Instruction begun
4 p. m.	Freshman convocation
Nov. 1, Mon., 5 p. m.	Latest day for announcement of subjects for all undergraduate and graduate theses
Oct. 4, Mon., 4 p. m.	Senate meeting
Nov. 17-20, Thurs. to Sat.	High School conference
Nov. 24, Wed., 12 m.	Thanksgiving recess begun
Nov. 29, Mon., 12 m.	Instruction resumed
Dec. 3, Fri.	Illinois Day
Dec. 6, Mon.	Senate meeting
Dec. 10, Fri.	Junior promenade
Dec. 14, Tues.	Quarterly meeting of the Board of Trustees
8 p. m.	Christmas concert
Dec. 21, Tues., 5 p. m.	Holiday recess begun
Dec. 31, Fri., 5 p. m.	Latest day for submission of outlines of theses by candidates for professional degrees in engineering
Jan. 3, Mon., 12 m.	Instruction resumed
Jan. 10-21	Short course in Highway Engineering
Jan. 17-29	Short courses in Agriculture and Household Science
Jan. 27, Thurs.	Semester examinations begun
Feb. 3, Thurs.	Semester examinations ended

SECOND SEMESTER, 1915-1916

FEB. 7, 8, MON., TUES.	REGISTRATION DAYS
Feb. 7, Mon., 4 p. m.	Senate meeting
Feb. 9, Wed., 8 a. m.	Instruction begun

Feb. 12, Sat.	Lincoln Day
Feb. 25, Fri.	Military ball
March 2, Thurs.	University Day
March 4, Sat.	Annual band concert
March 14, Tues.	Annual meeting of the Board of Trustees
April 1, Sat., 5 p. m.	Latest day for filing of completed theses by candidates for professional degrees in engi- neering
April 3, Mon.	Senate meeting
April 20, Thurs., 12 m.	Easter recess begun
April 25, Tues., 12 m.	Instruction resumed
April 27, Thurs.	Commencement, School of Pharmacy
May 12, Fri. evening	Interscholastic oratorical contest
May 11-13, Thurs. to Sat.	Public school art exhibit
May 13, Sat.	Interscholastic athletic meet
12 m.	Latest day for the receipt by the Dean of the Graduate School of certified copies of doc- tors' theses
May, between 15 and 31	Hazelton prize drill
	Annual inspection
	Company competitive drill
May 30, Tues.	Military Day
June 1, Thurs., 8 a. m.	Final examinations begun
12 m.	Latest day for acceptance of undergraduate theses
June 3, Sat., 12 m.	Latest day for receipt by the Dean of the Graduate School of certified copies of mas- ters' theses
June 5, Mon.	Senate meeting
June 8, Thurs.	Final examinations ended
June 11, Sun.	Baccalaureate address
June 12, Mon.	Class Day
	Senior ball
June 13, Tues.	Alumni Day
10 a. m.	Quarterly meeting of the Board of Trustees
JUNE, 14, WED.	FORTY-FIFTH ANNUAL COMMENCEMENT

THE BOARD OF TRUSTEES

MEMBERS EX OFFICIO

The Governor of Illinois

* HON. EDWARD F. DUNNE.....*Springfield*

The President of the State Board of Agriculture

DR. JOHN T. MONTGOMERY.....*Charleston*

The Superintendent of Public Instruction

HON. FRANCIS G. BLAIR.....*Springfield*

ELECTED MEMBERS

(Term, 1909-1915)

* LAURA B. EVANS.....*Taylorville*
 * ARTHUR MEEKER.....*Union Stock Yards, Chicago*
 * ALLEN F. MOORE.....*Monticello*

(Term, 1911-1917)

* WILLIAM L. ABBOTT.....*120 West Adams Street, Chicago*
 * MARY E. BUSEY.....*Urbana*
 * OTIS W. HOIT.....*Geneseo*

(Term, 1913-1919)

* ELLEN M. HENROTIN.....*1656 North La Salle Avenue, Chicago*
 * JOHN R. TREVETT.....*Champaign*
 * FLORENCE E. WATSON.....*Effingham*

OFFICERS OF THE BOARD

WILLIAM L. ABBOTT, 120 West Adams Street, Chicago.....President
 HARRISON E. CUNNINGHAM, Urbana.....Secretary
 MATTHEW W. BUSEY, Urbana.....Treasurer
 GEORGE E. FRAZER, Urbana.....Comptroller

COMMITTEES OF THE BOARD OF TRUSTEES

EXECUTIVE COMMITTEE

William L. Abbott, Chairman; Allen F. Moore, John R. Trevett

STANDING COMMITTEES

Buildings and Grounds—William L. Abbott, Chairman; Francis G. Blair, Mary E. Busey, Laura B. Evans, Allen F. Moore

Finance—Allen F. Moore, Chairman; Otis W. Hoit, John R. Trevett

Engineering—Arthur Mecker, Chairman; William L. Abbott, John R. Trevett

Agriculture—Otis W. Hoit, Chairman; Arthur Mecker, John T. Montgomery

College of Medicine and School of Pharmacy—John T. Montgomery, Chairman; William L. Abbott, Ellen M. Henrotin

Students' Welfare—Laura B. Evans, Chairman; Mary E. Busey, Ellen M. Henrotin, Florence E. Watson

Instruction—Francis G. Blair, Chairman; Ellen M. Henrotin, Florence E. Watson

Library—Mary E. Busey, Chairman; Laura B. Evans, Florence E. Watson

ADVISORY BOARDS

COLLEGE OF LAW

GEORGE E. DRENNAN.....	<i>Chicago</i>
WILLIAM R. HUNTER.....	<i>Kankakee</i>
WALTER C. LINDLEY.....	<i>Danville</i>
GEORGE T. PAGE.....	<i>Peoria</i>
PETER P. SCHAEFER.....	<i>Champaign</i>

SCHOOL OF PHARMACY

A. G. C. ACKERMAN.....	<i>Chicago</i>
HERMAN FRY.....	<i>Chicago</i>
JOHN C. WHEATCROFT.....	<i>Grayville</i>
GEORGE C. LESCHER.....	<i>Galesburg</i>
F. LUEDER.....	<i>Peoria</i>

DEPARTMENT OF CERAMICS

F. W. BUTTERWORTH.....	<i>Danville</i>
A. W. GATES.....	<i>Monmouth</i>
W. D. GATES.....	<i>Chicago</i>
D. V. PURINGTON.....	<i>Chicago</i>
J. W. STIPES.....	<i>Champaign</i>

ENGINEERING EXPERIMENT STATION

Conference Committee on Fuel Tests of Illinois Coals

WILLIAM L. ABBOTT.....	<i>Chicago</i>
For the Board of Trustees, University of Illinois	
A. BEMENT.....	<i>Chicago</i>
For the Western Society of Engineers	
F. H. CLARK.....	<i>Chicago</i>
For the Western Railway Club	
W. F. M. GOSS.....	<i>Urbana</i>
For the Engineering Experiment Station	
ADOLPH MUELLER.....	<i>Decatur</i>
For the Illinois Manufacturers' Association	
CARL SCHOLZ.....	<i>Chicago</i>
For the Illinois Coal Operators' Association	

Conference Committee on Electric Traction Tests

WILLIAM L. ABBOTT.....	Chicago
Chief Operating Engineer, Commonwealth Edison Company, Trustee of the University of Illinois	
L. E. FISHER.....	St. Louis, Mo.
Consulting Engineer	
T. B. GAYLORD.....	Chicago
District Manager, Westinghouse Electric and Manufacturing Company	
W. F. M. GOSS.....	Urbana
Director of the Engineering Experiment Station, University of Illinois	
EDWARD C. SCHMIDT.....	Urbana
Professor of Railway Engineering, University of Illinois	
B. E. SUNNY.....	Chicago
General Manager, General Electric Company	

AGRICULTURAL EXPERIMENT STATION

Dairy Husbandry Section

CHARLES FOSS.....	Cedarville
JOSEPH NEWMAN.....	Elgin
R. B. SWIFT.....	Libertyville
F. G. AUSTIN.....	Effingham
J. P. MASON.....	Elgin

Floriculture Section

H. E. SMITH.....	Danville
J. C. VAUGHAN.....	Chicago
W. N. RUDD.....	Morgan Park
F. L. WASHBURN.....	Bloomington
J. F. AMMANN.....	Edwardsville

Horticulture Section

J. MACK TANNER.....	Flora
H. A. ALDRICH.....	Neoga
H. M. DUNLAP.....	Savoy
AUGUST GEWEKE.....	Des Plaines
W. S. PERRINE.....	Centralia

Farm Crops Section

CHARLES ROWE.....	Jacksonville
A. A. HILL.....	Casner
A. C. RICE.....	Jacksonville
H. J. SCONCE.....	Sidell
G. C. OUTTEN.....	Mt. Zion

Soils Section

RALPH ALLEN.....	Delavan
J. P. MASON.....	Elgin
C. V. GREGORY.....	Chicago
F. I. MANN.....	Gilman
A. N. ABBOTT.....	Morrison

ADMINISTRATIVE OFFICERS

President of the University

EDMUND JANES JAMES, Ph.D., LL.D.

THE COUNCIL OF ADMINISTRATION

EDMUND JANES JAMES, Ph.D., LL.D., *President*

DAVID KINLEY, Ph.D., LL.D., *Vice President, Dean of the Graduate School, Director of the Courses in Business Administration, and Professor of Economics*

EUGENE DAVENPORT, M.Agr., LL.D., *Dean of the College of Agriculture, Director of Agricultural Extension Service, and Professor of Threnmmatology*

OLIVER ALBERT HARKER, A.M., LL.D., *Dean of the College of Law and Professor of Law*

THOMAS ARKLE CLARK, B.L., *Dean of Men and Professor of Rhetoric*

*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Dean of the College of Engineering, Director of the School of Railway Engineering and Administration, and Professor of Railway Engineering*

KENDRIC CHARLES BARCOCK, B.Lit., Ph.D., *Dean of the College of Liberal Arts and Sciences*

CHARLES RUSS RICHARDS, B.M.E., M.E., M.M.E., *Acting Dean of the College of Engineering and Professor of Mechanical Engineering*

FREDERICK BROWN MOOREHEAD, A.B., D.D.S., M.D., *Dean of the College of Dentistry and Professor of Oral Surgery and Pathology*

MARTHA JACKSON KYLE, A.M., *Acting Dean of Women*

GEORGE PETER DREYER, A.B., Ph.D., *Junior Dean of the College of Medicine, Professor of Physiology and Physiological Chemistry, and Head of the Department of Physiology and Physiological Chemistry*

DANIEL ATKINSON KING STEELE, M.D., LL.D., *Senior Dean of the College of Medicine, Professor of Surgery and Clinical Surgery, and Head of the Department of Surgery.*

*On leave, first semester.

GENERAL ADMINISTRATIVE OFFICERS

OFFICE OF THE PRESIDENT

EDMUND JAMES JAMES, Ph.D., LL.D., *President*

EDWARD JOSEPH FILBEY, Ph.D., *Private Secretary to the President*

VERGIL VIVIAN PHELPS, B.D., Ph.D., *Executive Secretary*

OFFICE OF THE VICE-PRESIDENT

DAVID KINLEY, Ph.D., LL.D., *Vice-President*

OFFICE OF THE COMPTROLLER

GEORGE ENFIELD FRAZER, A.B., LL.B., C.P.A., *Comptroller*

LYNN ELMER KNORR, A.B., C.P.A., *Assistant Comptroller*

*NATHANIEL HAY, *Purchasing Agent*

†OREN ELMER STAPLES, *Bursar*

LLOYD MOREY, A.B., B. Mus., *Auditor*

OFFICE OF THE REGISTRAR

CHARLES MAXWELL MCCONN, A.M., *Registrar*

HARRISON EDWARD CUNNINGHAM, A.B., *Assistant Registrar*

LEVI AUGUSTUS BOICE, *Recorder*

IRA MELVILLE SMITH, LL.B., *Chief Clerk*

GEORGE PHILIP TUTTLE, JR., B.S., *General Assistant*

OFFICE OF THE DEAN OF MEN

THOMAS ARKLE CLARK, B.L., *Dean*

ARTHUR RAY WARNOCK, A.B., *Assistant Dean*

OFFICE OF THE DEAN OF WOMEN

MARTHA JACKSON KYLE, A.M., *Acting Dean*

ADVISER TO FOREIGN STUDENTS

ARTHUR ROMEYN SEYMOUR, Ph.D., *Adviser*

OFFICE OF THE HIGH SCHOOL VISITOR

HORACE ADELBERT HOLLISTER, A.M., *High School Visitor*

JOHN JOSEPH DIDCOCK, A.M., M.S., *Assistant High School Visitor*

OFFICE OF THE SUPERVISING ARCHITECT

JAMES McLAREN WHITE, B.S., *Supervising Architect*

HENRY DIXON OBERDORFER, B.S., *Assistant to the Supervising Architect*

JOSEPH MORROW, *Superintendent of Buildings*

EVELYN ATKINSON, *Superintendent of Grounds*

*Deceased, February 9, 1915.

†Resigned, December 1, 1914.

DEPARTMENT OF PHYSICAL TRAINING FOR MEN

GEORGE A HUFF, *Director*

DEPARTMENT OF PHYSICAL TRAINING FOR WOMEN

GERTRUDE EVELYN MOULTON, A.B., *Director*

DEPARTMENT OF MILITARY SCIENCE

FRANK DANIEL WEBSTER, Major 20th U. S. Infantry, *Commandant*

FREDERICK WILLIAM POST, 1st Sergeant U. S. A., Ret'd, *Administrative Assistant*

THE UNIVERSITY LIBRARY

PHINEAS LAWRENCE WINDSOR, Ph.B., *Librarian*

FRANCIS KEESE WYNKOOP DRURY, A.M., B.L.S., *Assistant Librarian*

CURATORS

FRANK SMITH, A.M., *Professor of Systematic Zoology and Curator of the Museum of Natural History*

ARTHUR STANLEY PEASE, Ph.D., *Associate Professor of the Classics and Curator of the Museum of Classical Art and Archeology*

NEIL CONWELL BROOKS, Ph.D., *Assistant Professor of German and Curator of the Museum of European Culture*

THE COLLEGES AND SCHOOLS

THE COLLEGE OF LIBERAL ARTS AND SCIENCES

KENDRIC CHARLES BABCOCK, B. Lit., Ph.D., *Dean*

GEORGE HENRY MEYER, A.M., *Assistant Dean*

THE COLLEGE OF ENGINEERING

*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Dean*

CHARLES RUSS RICHARDS, B.M.E., M.E., M.M.E., *Acting Dean*

HARRY WILLARD MILLER, M.E., *Assistant Dean*

THE COLLEGE OF AGRICULTURE

EUGENE DAVENPORT, M.Agr., LL.D., *Dean*

FRED HENRY RANKIN, *Assistant to the Dean*

THE COLLEGE OF LAW

OLIVER ALBERT HARKER, A.M., LL.D., *Dean*

WILLIAM GREEN HALE, LL.B., *Secretary*

THE GRADUATE SCHOOL

DAVID KINLEY, Ph.D., LL.D., *Dean*

*On leave, first semester.

THE LIBRARY SCHOOL

PHINEAS LAWRENCE WINDSOR, Ph.B., *Director*

FRANCES SIMPSON, M.L., B.L.S., *Assistant Director*

THE SCHOOL OF MUSIC

JOHN LAWRENCE ERB, F.A.G.O., *Director*

THE SCHOOL OF EDUCATION

WILLIAM CHANDLER BAGLEY, Ph.D., *Director*

WILFORD STANTON MILLER, A.M., *Secretary*

THE COURSES IN BUSINESS ADMINISTRATION

DAVID KINLEY, Ph.D., LL.D., *Director*

NATHAN AUSTIN WESTON, Ph.D., *Assistant Director*

**THE SCHOOL OF RAILWAY ENGINEERING AND
ADMINISTRATION**

*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Director*

THE SUMMER SESSION

WILLIAM CHANDLER BAGLEY, Ph.D., *Director*

THE COLLEGE OF MEDICINE

DANIEL ATKINSON KING STEELE, M.D., LL.D., *Senior Dean*

GEORGE PETER DREYER, A.B., Ph.D., *Junior Dean*

WILLIAM HENRY BROWNE, *Secretary*

THE COLLEGE OF DENTISTRY

FREDERICK BROWN MOOREHEAD, A.B., D.D.S., M.D., *Dean*

WILLIAM HENRY BROWNE, *Secretary*

THE SCHOOL OF PHARMACY

WILLIAM BAKER DAY, Ph.G., *Acting Dean and Secretary*

*On leave, first semester.

OFFICERS OF INSTRUCTION

THE SENATE*

- EDMUND JAMES JAMES, Ph.D., LL.D., *President*
THOMAS JONATHAN BURRILL, Ph.D., LL.D., *Professor of Botany, Emeritus*
‡SAMUEL WALKER SHATTUCK, C.E., LL.D., *Professor of Mathematics, Emeritus*
NATHAN CLIFFORD RICKER, D.Arch., *Professor of Architecture*
IRA OSBORN BAKER, C.E., D.Eng., *Professor of Civil Engineering*
STEPHEN ALFRED FORBES, Ph.D., LL.D., *Professor of Entomology*
CHARLES WESLEY ROLFE, M.S., *Professor of Geology*
DONALD MCINTOSH, V.S., *Professor of Veterinary Science*
ARTHUR NEWELL TALBOT, C.E., *Professor of Municipal and Sanitary Engineering*
SAMUEL WILSON PARR, M.S., *Professor of Applied Chemistry*
HERBERT JEWETT BARTON, A.M., *Professor of the Latin Language and Literature,
Chairman of the Department of the Classics, and Secretary of the Senate*
CHARLES MELVILLE MOSS, Ph.D., *Professor of the Greek Language and Literature*
DANIEL KILHAM DODGE, Ph.D., *Professor of the English Language and Literature*
DAVID KINLEY, Ph.D., LL.D., *Professor of Economics, Vice President, Dean of
the Graduate School, and Director of the Courses in Business Administration*
EUGENE DAVENPORT, M.Agr., LL.D., *Professor of Thremmatology, Dean of the
College of Agriculture, and Director of Agricultural Extension Service*
ALBERT PRUDEN CARMAN, D.Sc., *Professor of Physics*
EVARTS BOUTELL GREENE, Ph.D., *Professor of History*
THOMAS ARKLE CLARK, B.L., *Professor of Rhetoric and Dean of Men*
ARTHUR HILL DANIELS, Ph.D., *Professor of Philosophy*
NEWTON ALONZO WELLS, M.P., *Professor of Architectural Decoration*
ISABEL BEVIER, Ph.M., *Professor of Household Science and Director of the
Courses in Household Science*
CYRIL GEORGE HOPKINS, M.S., Ph.D., *Professor of Agronomy*
MORGAN BROOKS, Ph.B., M.E., *Professor of Electrical Engineering*
GEORGE A HUFF, *Director of Physical Training for Men*
JAMES McLAREN WHITE, B.S., *Professor of Architectural Engineering and Super-
serving Architect*
HERBERT WINDSOR MUMFORD, B.S., *Professor of Animal Husbandry*
†MAURICE HENRY ROBINSON, Ph.D., *Professor of Industry and Transportation*
JOSEPH CULLEN BLAIR, M.S.A., *Professor of Horticulture*
HORACE ADELBERT HOLLISTER, A.M., *Professor of Education and High School
Visitor*
OLIVER ALBERT HARKER, A.M., LL.D., *Professor of Law and Dean of the Col-
lege of Law*

*The Senate is composed of all University officers of full professorial rank and all others in charge of independent departments of instruction. The order is that of seniority.

‡Deceased, February 13, 1915.

†On leave.

- EDWARD JOHN LAKE, B.S., *Assistant Professor of Art and Design and Acting Head of the Department of Art and Design*
- THOMAS EDWARD OLIVER, Ph.D., *Professor of Romance Languages*
- WILBER JOHN FRASER, M.S., *Professor of Dairy Farming*
- FREDERICK GREEN, A.M., LL.B., *Professor of Law*
- HARRY SANDS GRINDLEY, D.Sc., *Professor of Animal Nutrition*
- JAMES WILFORD GARNER, Ph.D., *Professor of Political Science*
- EDGAR JEROME TOWNSEND, Ph.D., *Professor of Mathematics*
- EDWARD BARTOW, Ph.D., *Professor of Sanitary Chemistry and Director of the State Water Survey*
- WILLIAM ALBERT NOYES, Ph.D., LL.D., *Professor of Chemistry and Director of the Chemical Laboratory*
- ERNEST RITSON DEWSNUP, A.M., *Professor of Railway Administration*
- *WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Professor of Railway Engineering, Dean of the College of Engineering, and Director of the School of Railway Engineering and Administration*
- GEORGE ABRAM MILLER, Ph.D., *Professor of Mathematics*
- EDWARD CARY HAYES, Ph.D., *Professor of Sociology*
- WILLIAM CHANDLER BAGLEY, Ph.D., *Professor of Education and Director of the School of Education*
- JULIUS GOEBEL, Ph.D., *Professor of German*
- GEORGE ALFRED GOODENOUGH, M.E., *Professor of Thermodynamics*
- PHINEAS LAWRENCE WINDSOR, Ph.B., *Librarian and Director of the Library School*
- BOYD HENRY BODE, Ph.D., *Professor of Philosophy*
- HENRY BALDWIN WARD, Ph.D., *Professor of Zoology*
- HARRY HARKNESS STOEK, B.S., E.M., *Professor of Mining Engineering*
- EDWARD CHARLES SCHMIDT, M.E., *Professor of Railway Engineering*
- DAVID HOBART CARNAHAN, Ph.D., *Associate Professor of Romance Languages and Chairman of the Committee of the Department of Romance Languages*
- STUART PRATT SHERMAN, Ph.D., *Professor of English and Chairman of the Committee of the Department of English*
- †CHARLES RUSS RICHARDS, M.E., M.M.E., *Professor of Mechanical Engineering, Head of the Department of Mechanical Engineering, and Acting Dean of the College of Engineering*
- CHARLES SPENCER CRANDALL, M.S., *Professor of Pomology*
- EDWARD HARRIS DECKER, A.B., LL.B., *Professor of Law and Acting Librarian of the College of Law*
- *JOHN ARCHIBALD FAIRLIE, Ph.D., *Professor of Political Science*
- JOHN WILLIAM LLOYD, M.S.A., *Professor of Olericulture*
- JEREMIAH GEORGE MOSIER, B.S., *Professor of Soil Physics*
- GERTRUDE EVELYN MOULTON, A.B., *Director of Physical Training for Women*
- ‡JAMES HARVEY PETTIT, Ph.D., *Professor of Soil Fertility*
- JOHN NORTON POMEROY, A.M., LL.D., *Professor of Law*
- §LOUIE HENRIE SMITH, Ph.D., *Professor of Plant Breeding and Acting Head of the Department of Agronomy*
- CHESTER GARFIELD VERNIER, Ph.B., J.D., *Professor of Law*

*On leave, first semester, 1914-15.

†Acting Dean, first semester.

‡Deceased, December, 1914.

§Acting head until November 1, 1914.

- BRUCE WILLET BENEDICT, B.S., *Director of Shop Laboratories in the Department of Mechanical Engineering*
- LOTUS DELTA COFFMAN, Ph.D., *Professor of Education*
- WILLIAM EDWARD BURGE, Ph.D., *Assistant Professor of Physiology and Acting Head of the Department of Physiology*
- ERNEST LUDLOW BOGART, Ph.D., *Professor of Economics*
- WILLIAM GREEN HALE, B.S., LL.B., *Professor of Law and Secretary of the Faculty of the College of Law*
- MADISON BENTLEY, B.S., Ph.D., *Professor of Psychology and Director of the Psychological Laboratory*
- RAY THOMAS STULL, E.M. (Cer.), *Acting Director of the Courses in Ceramics*
- CHARLES FREDERICK HOTTES, Ph.D., *Professor of Plant Physiology*
- HARRY ALEXIS HARDING, Ph.D., *Professor of Dairy Bacteriology and Head of the Department of Dairy Husbandry*
- GEORGE ENFIELD FRAZER, A.B., LL.B., *Professor of Public Accounting and Comptroller*
- KENDRIC CHARLES BABCOCK, B.Lit., Ph.D., *Dean of the College of Liberal Arts and Sciences*
- CHARLES HUGHES JOHNSTON, Ph.D., *Professor of Secondary Education*
- WILLIAM TRELEASE, D.Sc., LL.D., *Professor of Botany and Acting Head of the Department of Botany*
- JOHN STERLING KINGSLEY, D.Sc., *Professor of Zoology*
- CLARENCE WALWORTH ALVORD, Ph.D., *Professor of History*
- CLARENCE WILLIAM BALKE, Ph.D., *Professor of Inorganic Chemistry*
- WILLIAM SHIRLEY BAYLEY, Ph.D., *Professor of Geology*
- WALTER COSTELLA COFFEY, M.S., *Professor of Sheep Husbandry*
- MARTHA JACKSON KYLE, A.M., *Instructor in English and Acting Dean of Women*
- LAURENCE MARCELLUS LARSON, Ph.D., *Professor of History*
- OTTO EDUARD LESSING, Ph.D., *Professor of German*
- ELLERY BURTON PAINE, M.S., E.E., *Associate Professor of Electrical Engineering and Acting Head of the Department of Electrical Engineering*
- HENRY LEWIS RIETZ, Ph.D., *Professor of Mathematical Statistics*
- CHARLES MULFORD ROBINSON, A.M., *Professor of Civic Design*
- FRANK SMITH, A.M., *Professor of Systematic Zoology and Curator of the Museum of Natural History*
- JOEL STEBBINS, Ph.D., *Professor of Astronomy*
- EDWARD WIGHT WASHBURN, Ph.D., *Professor of Physical Chemistry*
- LOUIS ALLEN HARDING, M.E., *Professor of Experimental Mechanical Engineering*
- LORING HARVEY PROVINE, B.S., A.E., *Professor of Architectural Engineering and Acting Head of the Department of Architecture*
- FRANK DANIEL WEBSTER, Major 20th U. S. Infantry, *Professor of Military Science and Tactics and Commandant*
- FRANK LINCOLN STEVENS, Ph.D., *Professor of Plant Pathology*
- ROBERT YOUNG WILLIAMS, A.B., E.M., *Director of Miners' and Mechanics' Institutes*
- HERBERT FISHER MOORE, B.S., M.M.E., *Professor of Engineering Materials*
- JOHN LAWRENCE ERB, F.A.G.O., *Director of the School of Music and University Organist*

ASSOCIATE PROFESSORS

- EDWARD FULTON, Ph.D., *Associate Professor of Rhetoric*
 WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor of the Classics*
 CHARLES ZELNY, Ph.D., *Associate Professor of Zoology*
 ALBERT HOWE LYBYER, Ph.D., *Associate Professor of History*
 GEORGE TOBIAS FLOM, Ph.D., *Associate Professor of Scandinavian*
 ALEXANDER DYER MACGILLIVRAY, Ph.D., *Associate Professor of Systematic Entomology*
 ARTHUR STANLEY PEASE, Ph.D., *Associate Professor of the Classics and Curator of the Museum of Classical Art and Archeology*
 *WALTER FAIRLEIGH DODD, Ph.D., *Associate Professor of Political Science*
 GUY MONTROSE WHIPPLE, Ph.D., *Associate Professor of Education*

ASSISTANT PROFESSORS

- GEORGE HENRY MEYER, A.M., *Assistant Professor of German and Assistant Dean of the College of Liberal Arts and Sciences*
 EDWARD CHAUNCEY BALDWIN, Ph.D., *Assistant Professor of English*
 NEIL CONWELL BROOKS, Ph.D., *Assistant Professor of German and Curator of the Museum of European Culture*
 OSCAR ADOLPH LEUTWILER, M.E., *Assistant Professor of Machine Design*
 FRANCES SIMPSON, M.L., B.L.S., *Assistant Professor of Library Economy and Assistant Director of the Library School*
 NATHAN AUSTIN WESTON, Ph.D., *Assistant Professor of Economics and Assistant Director of the Courses in Business Administration*
 CHARLES TOBIAS KNIPP, Ph.D., *Assistant Professor of Physics*
 HARRY GILBERT PAUL, Ph.D., *Assistant Professor of the English Language and Literature*
 THOMAS EDMUND SAVAGE, Ph.D., *Assistant Professor of Stratigraphic Geology*
 FRED HENRY RANKIN, *Assistant Professor and Superintendent of Agricultural Extension, Assistant to the Dean of the College of Agriculture*
 FLOYD ROWE WATSON, Ph.D., *Assistant Professor of Physics*
 EDWARD HARDENBERGH WALDO, A.B., M.S., M.E., *Assistant Professor of Electrical Engineering*
 JUSTUS WATSON FOLSOM, D.Sc., *Assistant Professor of Entomology*
 WILLIAM FREDERICK SCHULZ, E.E., Ph.D., *Assistant Professor of Physics*
 JOHN DRISCOLL FITZ-GERALD II, Ph.D., *Assistant Professor of Romance Languages*
 JAKOB KUNZ, Ph.D., *Assistant Professor of Mathematical Physics*
 WILLIAM SPENCE ROBERTSON, Ph.D., *Assistant Professor of History*
 CHARLES HERSCHEL SISAM, Ph.D., *Assistant Professor of Mathematics*
 JOHN MCBEATH SNODGRASS, B.S., *Assistant Professor of Railway Mechanical Engineering*
 SIMON LITMAN, Dr.Jur.Pub. et Rer.Cam., *Assistant Professor of Economics*
 DAVID FORD MCFARLAND, Ph.D., *Assistant Professor of Applied Chemistry*
 JAMES BYRNIE SHAW, D.Sc., *Assistant Professor of Mathematics*
 ARNOLD EMCH, Ph.D., *Assistant Professor of Mathematics*

*On leave, second semester.

- HERMAN BERNARD DORNER, M.S., *Assistant Professor of Floriculture*
 MELVIN LORENIUS ENGER, B.S., C.E., *Assistant Professor of Theoretical and Applied Mechanics*
 NELLIE ESTHER GOLDTHWAITE, Ph.D., *Assistant Professor of Household Science*
 GEORGE FOSS SCHWARTZ, B.Mus., A.M., *Assistant Professor of Music*
 ALONZO MORRIS BUCK, M.E., *Assistant Professor of Railway Electrical Engineering*
 ARETAS WILBUR NOLAN, A.B., M.S., *Assistant Professor of Agricultural Extension*
 FRANKLIN WILLIAM SCOTT, Ph.D., *Assistant Professor of English and Secretary of the Department of English*
 HARRIE STUART VEDDER JONES, Ph.D., *Assistant Professor of English*
 BETHEL STEWART PICKETT, M.S., *Assistant Professor of Pomology*
 JOHN A DETLEFSEN, D.Sc., *Assistant Professor of Genetics*
 ALLEN BOYER MCDANIEL, B.S., *Assistant Professor of Civil Engineering*
 WILHELM MILLER, Ph.D., *Assistant Professor of Landscape Horticulture*
 LEONARD BLOOMFIELD, Ph.D., *Assistant Professor of Comparative Philology and German*
 DAVID SIMON BLONDHEIM, Ph.D., *Assistant Professor of Romance Languages*
 HOWARD VERNON CANTER, Ph.D., *Assistant Professor of the Classics*
 CLARENCE GEORGE DERICK, Ph.D., *Assistant Professor of Chemistry*
 JAMES LLOYD EDMONDS, B.S., *Assistant Professor of Horse Husbandry*
 ORA STANLEY FISHER, B.S., *Assistant Professor of Soil Fertility*
 NELSON WILLIAM HEPBURN, M.S., *Assistant Professor of Dairy Manufactures*
 HARRY WILLARD MILLER, M.E., *Assistant Professor of General Engineering Drawing and Assistant Dean of the College of Engineering*
 MARTIN JOHN PRUCHA, Ph.D., *Assistant Professor of Dairy Bacteriology*
 RALPH RODNEY ROOT, M.L.A., *Assistant Professor of Landscape Gardening*
 HENRY PERLY RUSK, M.S., *Assistant Professor of Cattle Husbandry*
 CONSTANCE BARLOW-SMITH, *Assistant Professor of Sight Singing and Ear Training, in charge of Public School Music*
 GEORGE MCPHAIL SMITH, Ph.D., *Assistant Professor of Chemistry*
 JAMES ELMO SMITH, C.E., *Assistant Professor of Civil Engineering*
 HENRY CHARLES PAUL WEBER, Ph.D., *Assistant Professor of Chemistry*
 ARTHUR CUTTS WILLARD, B.S., *Assistant Professor of Heating and Ventilation*
 ELMER ALLEN HOLBROOK, B.S., *Assistant Professor of Mining Engineering*
 PERCY ASH, B.S., C.E., *Assistant Professor of Architectural Design*
 WILLIAM CALDWELL TITCOMB, A.B., B.S., *Assistant Professor of Architecture*
 WILBUR M WILSON, M.M.E., *Assistant Professor of Structural Engineering*
 VICTOR ERNEST SHELFORD, Ph.D., *Assistant Professor of Zoology*
 RALPH EMERSON HEILMAN, Ph.D., *Assistant Professor of Economics*
 CHARLES EARNEST CARPENTER, A.M., LL.B., *Assistant Professor of Law*
 CHARLES ALTON ELLIS, A.B., *Assistant Professor of Civil Engineering*

ASSOCIATES

- CHARLES RICHARD CLARK, B.S., *Associate in Architectural Construction*
 ARTHUR ROMEYN SEYMOUR, Ph.D., *Associate in Spanish and Adviser to Foreign Students*
 ARTHUR ROBERT CRATHORNE, Ph.D., *Associate in Mathematics*
 ROBERT LACY BORGER, Ph.D., *Associate in Mathematics*

- ERNEST BARNES LYTLE, Ph.D., *Associate in Mathematics*
 JACOB ZEITLIN, Ph.D., *Associate in English*
 JOHN MABRY MATHEWS, Ph.D., *Associate in Political Science*
 ERNEST WINFIELD BAILEY, M.S., *Associate in Pomology*
 DANIEL OTIS BARTO, B.S., *Associate in Poultry Husbandry*
 ROYDEN EARL BRAND, M.S., *Associate in Dairy Husbandry*
 VIRGIL R. FLEMING, B.S., *Associate in Theoretical and Applied Mechanics*
 AXEL FERDINAND GUSTAFSON, M.S., *Associate in Soil Physics*
 PAUL HANSEN, B.S., *Associate in Sanitary Engineering and Engineer for the State Water Survey*
 WILLIAM LEONIDAS BURLISON, M.S., *Associate in Crop Production*
 HAROLD WILSON STEWART, B.S., *Associate in Soil Physics*
 ELMER HOWARD WILLIAMS, Ph.D., *Associate in Physics*
 LURENE SEYMOUR, B.S., Ph.B., *Associate in Household Science*
 GUSTAF ERIC WAHLIN, Ph.D., *Associate in Mathematics*
 STEPHEN OSGOOD ANDROS, AB., B.S., E.M., *Associate in Mining Engineering*
 FREDERICK CHARLES BAUER, B.S., *Associate in Soil Fertility*
 SIMEON JAMES BOLE, A.M., *Associate in Pomology*
 SLEETER BULL, M.S., *Associate in Animal Nutrition*
 ARTHUR FRANCIS COMSTOCK, B.S., C.E., *Associate in Railway Civil Engineering*
 WILLIAM TRUMAN CRANDALL, B.S., M.S., *Associate in Milk Production*
 FLORENCE RISING CURTIS, A.B., B.L.S., *Associate in Library Economy*
 JOHN ADLUM DENT, M.E., *Associate in Mechanical Engineering*
 IRA WILMER DICKERSON, B.S., *Associate in Farm Mechanics*
 CHARLES ELMER DURST, M.S., *Associate in Olericulture*
 KARL JOHN THEODORE EKBLAW, M.S., *Associate in Farm Mechanics*
 IRA WILLIAM FISK, M.S., *Associate in Electrical Engineering*
 NEAL BRYANT GARVER, C.E., *Associate in Civil Engineering*
 CORA EMELINE GRAY, M.S., *Associate in Household Science*
 WALTER FREDERICK HANDSCHIN, B.S., *Associate in Animal Husbandry, State Leader of County Demonstration Work, and Acting Vice-Director of the Demonstration Service*
 LEONARD VAUGHAN JAMES, M.S., E.E., *Associate in Electrical Engineering*
 ALBERT WOODWARD JAMISON, M.S., *Associate in Agricultural Extension*
 WALTER EDWARD JOSEPH, Ph.D., *Associate in Animal Husbandry*
 LEROY LANG, M.S., *Associate in Dairy Manufactures*
 FRANCIS MARION PORTER, M.S., *Associate in General Engineering Drawing*
 ROBERT KENT STEWARD, C.E., *Associate in General Engineering Drawing*
 OSCAR S. WATKINS, B.S., *Associate in Horticultural Chemistry*
 RUTH WHEELER, Ph.D., *Associate in Household Science*
 ALBERT LEMUEL WHITING, Ph.D., *Associate in Soil Biology*
 CARROLL CARSON WILEY, C.E., *Associate in Civil Engineering*
 CHARLES HENRY WOOLBERT, A.M., *Associate in Public Speaking and English*
 PHILIP SHERIDAN BIEGLER, B.S., *Associate in Electrical Engineering*
 GEORGE DENTON BEAL, Ph.D., *Associate in Chemistry*
 CLARENCE VALENTINE BOYER, Ph.D., *Associate in English*
 HERBERT LESOURD CREEK, Ph.D., *Associate in English*
 B SMITH HOPKINS, Ph.D., *Associate in Chemistry*
 PAUL VANBRUNT JONES, Ph.D., *Associate in History*
 DUNCAN ARTHUR MACINNES, Ph.D., *Associate in Chemistry*

THEODORE CALVIN PEASE, Ph.D., *Associate in History*
 GERTRUDE SCHOEPFERLE, Ph.D., *Associate in English*
 CHARLES MANFRED THOMPSON, Ph.D., *Associate in Economics*
 IRA DENT ALLISON, B.S., *Associate in Horticulture*
 JOHN JOSEPH GARDNER, M.S., *Associate in Pomology*

LECTURERS

EDNA LYMAN SCOTT, *Special Lecturer on Library Work for Children*
 GEORGE BENJAMIN RICE, *Lecturer on the Installation and Operation of Mechanical Equipment for Buildings and Assistant Mechanical Engineer in the Office of the Supervising Architect*
 WILLIAM ARTHUR CHASE, LL.B., C.P.A., *Lecturer on Accountancy and Commercial Law*
 ROBERT ENOCH HIERONYMUS, A.M., LL.D., *Community Adviser and Lecturer*

INSTRUCTORS

DAISY LUANA BLAISDELL, A.M., *Instructor in German*
 HENRI JACOBUS VAN DEN BERG, *Instructor in Piano*
 EDGAR THOMAS LANHAM, *Instructor in Forge Shop*
 ALBERT AUSTIN HARDING, *Instructor in Wind Instruments and Director of the University Military Band*
 MARY MINERVA WETMORE, *Instructor in Art and Design*
 HARRY LOVERING GILL, *Instructor in Track Athletics*
 HARRY FREDERICK GODEKE, B.S., *Instructor in Mechanical Engineering*
 GEORGE WELLINGTON PICKELS, JR., B.C.E., C.E., *Instructor in Civil Engineering*
 CHARLES MARSHALL POOR, Ph.D., *Instructor in German*
 JOHN GIFFIN THOMPSON, Ph.D., *Instructor in Economics*
 FRANK WALKER REED, Ph.D., *Instructor in Astronomy*
 GEORGE PAUL BOOMSLITER, B.S., *Instructor in Theoretical and Applied Mechanics*
 FLORENCE MARY KIRKUP, *Instructor in Voice*
 CLARENCE EUGENE NOERENBERG, B.S., A.E., *Instructor in Theoretical and Applied Mechanics*
 FRED B SEELY, B.S., *Instructor in Theoretical and Applied Mechanics*
 CHARLES ALLYN WILLIAMS, Ph.D., *Instructor in German*
 NEWTON EDWARD ENSIGN, A.B., B.S., *Instructor in Theoretical and Applied Mechanics*
 ROBERT EDWIN KENNEDY, *Instructor in Foundry*
 WILLIAM HORACE RAYNER, B.S., *Instructor in Civil Engineering*
 HARVEY HERBERT JORDAN, B.S., *Instructor in General Engineering Drawing*
 AUBREY JOHN KEMPNER, Ph.D., *Instructor in Mathematics*
 JOHN LYON RICH, Ph.D., *Instructor in Geology*
 HAROLD ORDWAY RUGG, C.E., *Instructor in General Engineering Drawing*
 WILLIAM HERSCHEL SMITH, M.S., *Instructor in Animal Husbandry*
 RAYMOND EARL DAVIS, B.S., *Instructor in Civil Engineering*
 ARMIN HAJMAN KOLLER, Ph.D., *Instructor in German*
 JOSEPH HOWARD BEARD, A.M., M.D., *Instructor in Physiology*
 EDWARD WILSON CHITTENDEN, Ph.D., *Instructor in Mathematics*
 ARTHUR CHARLES COLE, Ph.D., *Instructor in History*
 WILLIAM WELLS DENTON, Ph.D., *Instructor in Mathematics*
 MARVIN EDWARD JAHR, A.B., *Instructor in Farm Mechanics*

- ROBERT TAYLOR JONES, B.S., *Instructor in Architecture*
 JOSEPH MITCHELL KELLOGG, M.Arch., *Instructor in Architectural Design*
 EDSON WILFRED MORPHY, *Instructor in Violin*
 CHESTER OTIS REED, B.S., *Instructor in Farm Mechanics*
 LAMBERT THORP, Ph.D., *Instructor in Chemistry*
 EDNA ALMEDA TREAT, B.Mus., *Instructor in Piano*
 LOWELL LESLIE TOWNSEND, A.M., *Instructor in Piano*
 CHARLES GEORGE MACARTHUR, A.M., *Instructor in Physiological Chemistry*
 OLIN HARRIS MOORE, Ph.D., *Instructor in Romance Languages*
 ERNEST JAMES REECE, Ph.B., *Instructor in Library Economy*
 ETHEL BOND, A.B., B.L.S., *Instructor in Library Economy and Assistant in charge of the Collections in Library Economy*
 EDWIN JOHN MANLEY, *Instructor in Swimming*
 SAMUEL CHATWOOD BURTON, A.M., *Instructor in Architecture*
 HEBER DIGNAM NASMYTH, *Instructor in Voice*
 CLARISSA RINAKER, Ph.D., *Instructor in English*
 HARLEY JONES VANCLEAVE, Ph.D., *Instructor in Zoology*
 HENRY JOHN BRODERSON, Ph.D., *Instructor in Chemistry*
 JOSEPHINE ELIZABETH BURNS, Ph.D., *Instructor in Mathematics*
 MERVIN JAMES CURL, A.M., *Instructor in English*
 EASLEY STEPHEN JONES, A.M., *Instructor in English*
 WALTER BYRON McDUGALL, Ph.D., *Instructor in Botany*
 QUEEN LOIS SHEPHERD, Ph.D., *Instructor in Philosophy*
 ANGELO BENEDETTO MARINO CORRUBIA, B.S., M.S., *Instructor in Architecture*
 RUFUS CRANE, A.B., B.S., *Instructor in General Engineering Drawing*
 PHILIP STEPHAN BARTO, Ph.D., *Instructor in German*
 VERA BROOKS, A.B., *Instructor in Physical Training for Women*
 ARTHUR BOQUER DOMONOSKE, M.S., *Instructor in Machine Design*
 ELMER TRYON EBERSOL, A.B., B.S., *Instructor in Crop Production*
 ROY NEWTON FARGO, B.S., *Instructor in Physical Training for Men and Director of the Men's Gymnasium*
 FOREST ADDISON FISHER, B.S., *Instructor in Soil Physics*
 GEORGIA ELIZABETH FLEMING, B.S., *Instructor in Textiles*
 STELLA MARY HAGUE, Ph.D., *Instructor in Botany*
 FLORENCE HARRISON, B.S., *Instructor in Household Science*
 ROBERT WILLIAM HOFFMAN, B.S., *Instructor in Landscape Gardening*
 RAY STILLMAN HULCE, M.S., *Instructor in Milk Production*
 RALPH KENT HURSH, B.S., *Instructor in Ceramics*
 MAUDE EDNA PARSONS, A.B., *Instructor in Household Science and Director of the Lunch Room*
 BARNEY S RADCLIFFE, M.S., *Instructor in Ceramics*
 GUSTAV H RADEBAUGH, *Instructor in Machine Work*
 HARRISON AUGUST RUEHE, B.S., *Instructor in Dairy Manufactures*
 HIRAM THOMPSON SCOVILLE, A.B., *Instructor in Accountancy*
 FRANK A CUSHING SMITH, B.S., M.L.A., *Instructor in Landscape Design*
 GRACE ESTHER STEVENS, A.B., *Instructor in Household Science*
 GEORGE FRISBIE WHICHER, A.M., *Instructor in English*
 HARRY WILLIAM WATERFALL, B.S., *Instructor in Machine Design*
 CHRISTIAN ALBAN RUCKMICH, Ph.D., *Instructor in Psychology*

HAROLD EATON BABBITT, B.S., *Instructor in Municipal and Sanitary Engineering*
 HARRY GARDNER, M.S., *Instructor in Theoretical and Applied Mechanics*
 ALEXANDER VALLANCE, M.E., *Instructor in Theoretical and Applied Mechanics*
 CHARLES EARL BRADBURY, B.P., *Instructor in Art and Design*
 ABNER RICHARD KNIGHT, M.E., *Instructor in Electrical Engineering*
 ROGER SHERMAN LOOMIS, B.Lit., A.M., *Tutor in English*
 CHARLES HENRY HECKER, Ph.D., *Instructor in Chemistry*
 ANNA VIOLA SIMON, *Instructor in Voice*
 ARTHUR GRENVILLE ELDRIDGE, *Instructor in Photography and Director of the
Photographic Laboratories*
 GUSTAVE ADOLPH GROSS, *Instructor in Pattern Making*
 ROBERT DOUGLAS GLASGOW, Ph.D., *Instructor in Entomology*
 ALEXANDER GREEN, Ph.D., *Instructor in German*
 *GUY G MILLS, B.S., *Instructor in Civil Engineering*
 CHARLES RUBY MOORE, B.S., *Instructor in Electrical Engineering*
 EARLE STANLEY ALDEN, A.M., *Instructor in English*
 MAMIE BUNCH, A.B., *Instructor in Household Science, in charge of Extension
Work*
 ALFRED COPELAND CALLEN, M.S., E.M., *Instructor in Mining Engineering*
 LYNN HAROLD HARRIS, Ph.D., *Instructor in English*
 EDWARD OTTO HEUSE, Ph.D., *Instructor in Chemistry*
 HAROLD NEWCOMB HILLEBRAND, Ph.D., *Instructor in English*
 LLOYD THEODORE JONES, A.M., M.S., *Instructor in Physics*
 HORATIO SPRAGUE MCDEWELL, B.S., M.E., *Instructor in Mechanical Engineering*
 HARRISON MCJOHNSTON, A.M., *Instructor in Business English and Salesman-
ship*
 CLYDE ROSS NEWELL, Ph.B., M.S., *Instructor in Farm Mechanics*
 HUBERT LEONARD OLIN, Ph.D., *Instructor in Chemistry*
 EDITH GRIFFITH OSMOND, A.B., B.S., *Instructor in Physical Training for Women*
 FRANK ASHMORE PEARSON, B.S., *Instructor in Dairy Husbandry*
 GEORGE WALLACE SEARS, Ph.D., *Instructor in Chemistry*
 JOEL ANDREW SPERRY, Ph.D., *Instructor in Bacteriology*
 RUSSELL MCCULLOCH STORY, A.M., *Instructor in Political Science*
 RALPH EARLE TIEJE, A.M., *Instructor in English*
 FREDERICK CALKINS TORRANCE, M.E., *Instructor in Mechanical Engineering*
 ROBERT CALVIN WHITFORD, A.M., *Instructor in English*
 ANNA WALLER WILLIAMS, A.M., *Instructor in Household Science*
 ARTHUR EDWARDS WILLIAMS, B.S., *Instructor in Ceramics*
 JOHN WILLIAMS DAVIS, M.E., *Instructor in Electrical Engineering*
 RALPH STANLEY FANNING, B.Arch., *Instructor in Architectural Design*
 WILLIAM DEWEY FOSTER, M.S., *Instructor in Architectural Design*
 JESSIE YEREANCE CANN, Ph.D., *Instructor in Chemistry*
 WILLIAM SIDNEY WOLFE, M.S., *Instructor in Architectural Engineering*
 EDWIN FRANK, B.S., *Instructor in Mechanical Engineering*
 JAMES BURTON ANDREWS, B.S., *Instructor in Animal Husbandry*
 FREDERICK NOBEL EVANS, A.B., M.L.A., *Instructor in Landscape Gardening*
 CARL SAWYER DOWNES, Ph.D., *Instructor in English*
 GRETA GRAY, A.M., *Instructor in Household Science*
 MARGARET BEAUMONT STANTON, B.S., A.M., *Instructor in Household Science*

*Second semester.

WILLIAM JAMES PUTNAM, B.S., *Instructor in Theoretical and Applied Mechanics*
 ELMER ROBERTS, B.S., *Instructor in Genetics*
 JAMES HARVEY HOGUE, *Instructor in Foundry Practise*
 RUSSELL OSBORNE STIDSTON, Ph.D., *Instructor in English*
 *HOMER BLOSSER REED, Ph.D., *Instructor in Psychology*
 †CARL RAHN, Ph.D., *Instructor in Psychology*
 SIDNEY CASNER, A.B., *Instructor in Physical Training for Men*

ASSISTANTS

JAMES MERION DUNCAN, *Assistant in Pattern Making*
 SADA ANNIS HARBARGER, A.M., *Assistant in English*
 RUTH KELSO, A.M., *Assistant in English*
 ELIZABETH PARNHAM BRUSH, A.M., *Assistant in History*
 BESSIE ROSE GREEN, A.M., *Assistant in Zoology*
 ROSALIE MARY PARR, A.M., *Assistant in Botany*
 PETER JOSEPH REBMAN, *Assistant in Forge Shop*
 LLOYD THEODORE JONES, A.M., *Assistant in Physics*
 WALTER ALBERT BUCHEN, A.M., *Assistant in English*
 OLIVER ARNOLD KELLER, B.S., *Assistant in Dairy Manufactures*
 WILFORD STANTON MILLER, A.M., *Assistant in Education and Secretary of the School of Education*
 OSCAR ALAN RANDOLPH, M.S., *Assistant in Physics*
 ORR MILTON ALLYN, B.S., *Assistant in Crop Production*
 WILBUR JEROME CARMICHAEL, B.S., *Assistant in Animal Husbandry*
 JOHN ALEXANDER FRISK, *Assistant in Mechanical Engineering and Mechanician in the Mechanical Engineering Laboratory*
 ROSA LEE GAUT, B.Mus., *Assistant in Physical Training for Women*
 CLARENCE MARK HEBBERT, B.S., *Assistant in Mathematics*
 RALPH R JONES, *Assistant in Physical Training for Men*
 OLIVER KAMM, Ph.D., *Assistant in Chemistry*
 ALVAH PETERSON, A.M., *Assistant in Entomology*
 JOHN WILLIAM READ, M.S., *Assistant in Chemistry*
 EARLE HORACE WARNER, A.M., *Assistant in Physics*
 JOHN JONATHAN YOKE, B.S., *Assistant in Animal Husbandry*
 BERT STOVER DAVISSON, A.M., *Assistant in Chemistry*
 EMERSON GRANT SUTCLIFFE, A.B., *Assistant in English*
 LEW R SARETT, A.B., *Assistant in Public Speaking*
 BRONISLAV ROMAN HONOVSKI, Ph.D., *Research Assistant in Chemistry*
 CONRAD JOSEPH EPPELS, *Assistant in Romance Languages*
 SEBASTIAN KARRAR, A.M., *Assistant in Physics*
 JONAS BERNARD NATHANSON, A.M., *Assistant in Physics*
 BENJAMIN LESTER BOWLING, *Assistant in the Cement Laboratory*
 LAWRENCE VREELAND BURTON, B.S., *Assistant in Bacteriology*
 CHARLES SEROPHIN CARRY, *Assistant in Romance Languages*
 JOSEPH HARVEY CHECKLEY, B.S., *Assistant in Agricultural Extension*
 ARTHUR SAMUEL COLBY, B.S., *Assistant in Pomology*
 HARVEY PEACH CORSON, M.S., *Assistant in Sanitary Chemistry and Chemist and Bacteriologist in the State Water Survey*
 EDGAR WALLACE ENGLE, B.S., *Assistant in Chemistry*

*First semester.

†Second semester.

HARRISON FRED THEODORE FAHRNKOPF, B.S., *Assistant in Soil Fertility*
 HARRY CHARLES GILKERSON, B.S., *Assistant in Soil Fertility*
 HARRY VIRL HEIMBURGER, A.B., *Assistant in Zoology*
 RAYMOND WASHINGTON HESS, A.M., *Assistant in Chemistry*
 ERNEST MICHAEL RUDOLPH LAMKEY, A.B., *Assistant in Botany*
 RALPH HARLAN LINKINS, A.B., *Assistant in Zoology*
 WILLIAM PITT MILLER, B.S., *Assistant in Agricultural Extension*
 ALMA JESSIE NEILL, A.B., *Assistant in Physiology*
 CHARLES IVAN NEWLIN, B.S., *Assistant in Animal Husbandry*
 CLARENCE SAMUEL ROSS, A.B., *Assistant in Geology*
 GUY WATSON SMITH, M.S., *Assistant in Mathematics*
 HOWARD JOHN SNIDER, B.S., *Assistant in Soil Fertility*
 THOMAS BLAINE STANLEY, A.B., *Assistant in English*
 SCOTT CHAMPLIN TAYLOR, B.S., *Assistant in Chemistry*
 HARRY DWIGHT WAGGONER, A.B., *Assistant in Botany*
 EDWARD HARVEY WALWORTH, B.S., *Assistant in Crop Production*
 THOR GRIFFITH WESENBERG, A.M., *Assistant in Romance Languages*
 ERNEST ATKINS WILDMAN, B.S., *Assistant in Chemistry*
 WILLIAM WODIN YAPP, B.S., *Assistant in Dairy Husbandry*
 ADOLF EDUARD ZUCKER, A.M., *Assistant in German*
 WARREN RIPPEY SCHOONOVER, B.S., *Assistant in Soil Fertility*
 HENRY CHARLES ZEIS, A.B., *Assistant in Mathematics*
 ANNA SUE HUGHITT, *Assistant in Physical Training for Women*
 *DOROTHY RUTH SHOEMAKER, A.B., *Assistant in Physical Training for Women*
 ALFRED CHESTER HANFORD, A.M., *Assistant in Political Science*
 GEORGE WASHINGTON SPINDLER, A.M., *Assistant in German*
 LOUIS ALLEN, A.B., *Assistant in Romance Languages*
 FRANZ AUGUST AUST, M.S., *Assistant in Landscape Design*
 RAYMOND EPHRAIM DIXON, A.M., *Assistant in English*
 EARLE ROBINSON MATH, B.S., *Assistant in Architectural Construction*
 HARRY MONTGOMERY WEETER, A.B., *Assistant in Dairy Husbandry*
 PAUL ANDERS, *Assistant in Glass Blowing*
 RALPH EDWARD MUEHLMAN, *Assistant in Architecture*
 THEODORE ROLLY BALL, M.S., *Assistant in Chemistry*
 PAUL LEVERN BAYLEY, A.M., *Assistant in Physics*
 CLYDE BYRON BECK, A.B., *Assistant in English*
 ERNEST EDWARD CHARLTON, A.B., *Assistant in Chemistry*
 NORA ELIZABETH DALBEY, A.M., *Assistant in Botany*
 RALPH RAYMOND DANIELSON, B.S., *Assistant in Ceramics*
 JUANITA ELIZABETH DARRAH, A.B., *Assistant in Chemistry*
 JOSEPH EDGAR DECAMP, Ph.D., *Assistant in Psychology*
 WILLIAM HENRY DRESEN, A.B., *Assistant in Economics and Commerce*
 HENRY MATHUSALEM DUBOIS, A.M., *Assistant in Geology*
 CARL HERMAN HAESSLER, A.B., *Assistant in Philosophy*
 HENRY HORACE HIBBS, JR., A.M., *Assistant in Sociology*
 ROBERT MAURICE HUSBAND, *Assistant in General Engineering Drawing*
 WILLIAM HENRY HYSLOP, A.M., *Assistant in Physics*
 FORREST ELLWOOD KEMPTON, M.S., *Assistant in Botany*
 CHARLES KELLEY KNIGHT, A.M., *Assistant in Economics*

*First semester.

HARRY CLEVELAND KREMERS, A.B., *Assistant in Chemistry*
 WILLIAM ASBURY MANUEL, A.B., *Assistant in Chemistry*
 ROBERT HASKELL MARSHALL, A.B., *Assistant in Mathematics*
 HENRY GUSTAV MAY, B.S., *Research Assistant in Zoology*
 JAY EARLL MILLER, LL.B., A.M., *Assistant in History*
 ELMORE PETERSEN, AB., B.Com., *Assistant in Economics*
 BERT EDWIN QUICK, A.B., *Assistant in Botany*
 MASON KENT READ, B.S., *Assistant in Geology*
 EDWIN ARTHUR REES, A.M., *Assistant in Chemistry*
 HOWARD DEWITT VALENTINE, B.S., *Assistant in Chemistry*
 EDWARD WICHERS, A.B., *Assistant in Chemistry*
 WILLIAM HAROLD WILSON, A.M., *Assistant in Mathematics*
 JOSEPH CHARLES WINSLOW, A.B., *Assistant in Bacteriology*
 EDWARD LAURENCE MCKENNA, A.M., *Assistant in Economics*
 CHARLES FRANCIS HILL, A.B., *Assistant in Physics*
 WILLIAM BARBER NEVENS, B.S., *Assistant in Dairy Husbandry*
 JAMES KESSLER, A.B., *Assistant in Romance Languages*
 MARGARET VARA COBB, A.M., *Assistant in Education*
 JAMES HOWARD HANGER, A.M., *Assistant in Education*
 CYRUS WILLIAM LANTZ, A.M., *Assistant in Botany*
 HERBERT WORDSWELL BLANEY, B.S., M.L.A., *Assistant in Landscape Extension*
 HOWARD DEXTER BROWN, B.S., *Assistant in Olericulture*
 EDWIN DEAL, B.S., *Assistant in Landscape Extension*
 DUANE TAYLOR ENGLIS, A.M., *Assistant in Floricultural Chemistry*
 CLAUDE HARPER, B.S., *Assistant in Animal Husbandry*
 AUGUST GEORGE HECHT, B.S., *Assistant in Floriculture*
 LEE ELLIS MILES, A.B., *Assistant in Floriculture*
 *ANTON PRASIL, B.S., *Assistant in Animal Chemistry*
 ALEXANDER FELIX SAMUELS, A.B., *Research Assistant in Astronomy*
 JOHN RAYMOND VANKLEEK, B.S., M.L.D., *Assistant in Landscape Extension*
 JAMES WILBUR WHISENAND, B.S., *Assistant in Animal Husbandry*
 JAMES MANLEY PHELPS, A.B., *Assistant in Public Speaking*
 JAMES STORER, A.M., *Assistant in Geology*
 WILLIAM MACY STANTON, M.S., *Assistant in Architecture*
 NATHAN CESNA GRIMES, A.M., *Assistant in Mathematics*
 ROSS EARLEY GILMORE, A.M., *Assistant in Chemistry*
 RAFAEL ARCANGEL SOTO, B.S., *Assistant in Romance Languages*
 CLARENCE ALLEN ATWELL, B.S., *Assistant in General Engineering Drawing*
 HENRY JOSEPH WEILAND, B.S., *Research Assistant in Chemistry*
 CHARLES WEST REDWOOD, *Scientific Artist in Zoology*
 ALMA PENROSE, A.B., *Reviser in Library Science*
 PAUL WILLIAM ALLEN, M.S., *Assistant in Dairy Bacteriology*

GRADUATE ASSISTANTS

HOMER ELDON CHENOWETH, A.B., *Graduate Assistant in Zoology*
 STEWART DENT MARQUIS, A.B., *Graduate Assistant in Chemistry*
 EVERETT HARVEY TAYLOR, A.B., *Graduate Assistant in Chemistry*
 RALPH WALDO TIPPET, A.B., *Graduate Assistant in Chemistry*
 REUBEN WINFIELD ALLEN, M.S., *Graduate Assistant in Chemistry*
 CLARENCE BARERE, B.S., *Graduate Assistant in Chemistry*

*Resigned, November 21, 1914.

RACHEL ANN BAUMGARTNER, A.B., *Graduate Assistant in Zoology*
DON WARREN BISSELL, B.S., *Graduate Assistant in Chemistry*
SILAS ALONZO BRALEY, A.B., *Graduate Assistant in Chemistry*
JESSE LEROY CONEL, A.M., *Graduate Assistant in Zoology*
CARL NATHAN DAVIDSON, A.B., *Graduate Assistant in Chemistry*
ROBERT LESLEY DAVIS, B.S., *Graduate Assistant in Botany*
PAUL MARSHALL DEAN, A.M., *Graduate Assistant in Chemistry*
JAY THOMAS FORD, A.B., *Graduate Assistant in Chemistry*
HENRY LESTER GERRY, A.M., *Graduate Assistant in Chemistry*
GEORGE MARSH HIGGINS, B.S., *Graduate Assistant in Zoology*
AXEL MAGNUS HJORT, A.B., *Graduate Assistant in Chemistry*
WALTER GERALD KARR, B.S., *Graduate Assistant in Chemistry*
HENRY RHODES LEE, A.B., *Graduate Assistant in Chemistry*
HAROLD DEAN LESLIE, A.B., *Graduate Assistant in Economics*
JAMES BURLEIGH LUCAS, M.S., *Graduate Assistant in Chemistry*
THOMAS BYRD MAGATH, M.S., *Graduate Assistant in Zoology*
HARRIETT BELL MERRILL, M.S., *Graduate Assistant in Zoology*
HERBERT EDMOND METCALF, B.S., *Graduate Assistant in Zoology*
WILLIAM EUGENE PICKLER, A.B., *Graduate Assistant in Botany*
ANNA SOPHIE ROGERS, A.M., *Graduate Assistant in Psychology*
ALBERT DURAND SHEPARD, B.S., *Graduate Assistant in Chemistry*
GLENN SEYMOUR SKINNER, A.B., *Graduate Assistant in Chemistry*
ERNEST HENRY VOLLWEILER, A.B., *Graduate Assistant in Chemistry*
TERRENCE ONAS WESTHAEFER, A.B., *Graduate Assistant in Chemistry*

STUDENT ASSISTANTS

HENRY CHARLES ECKSTEIN, *Student Assistant in Chemistry*
JOHN MOLLER JANSON, *Student Assistant in Chemistry*
GEORGE BENJAMIN RUBY, *Student Assistant in Chemistry*
EVERETT ROBERT BRUNSKILL, *Student Assistant in Chemistry*
CLARENCE W. BURKHART, *Student Assistant in Chemistry*
E. M. A. CHANDLER, *Student Assistant in Chemistry*
FRED H. ELDRED, *Student Assistant in Chemistry*
FRANK FOOTITT, *Student Assistant in Chemistry*
ARTHUR FERDINAND HAKANSON, *Student Assistant in Chemistry*
WILLIAM DURRELL HATFIELD, *Student Assistant in Chemistry*
SIDNEY MARION HALL, *Student Assistant in Chemistry*
MABEL JACKSON, *Student Assistant in Physical Training*
HENRY RHODES LEE, *Student Assistant in Chemistry*
CLARENCE EDGAR SIMS, *Student Assistant in Chemistry*

ASSISTANTS IN MILITARY SCIENCE

WALTER CLARK ARMSTRONG, *Assistant in Military Science*
HAROLD EDWARD BARDEN, *Assistant in Military Science*
EDWARD CHARLES ELLES, *Assistant in Military Science*
JOSEPH NATHANIEL GREENE, *Assistant in Military Science*
AUGUSTUS HENRY GRUNEWALD, *Assistant in Military Science*
JOSEPH COLUMBUS HOSTETLER, *Assistant in Military Science*
CLIFFORD F. HOOD, *Assistant in Military Science*
LLOYD DUNAWAY KNAPP, *Assistant in Military Science*
ROE NIVER, *Assistant in Military Science*
ERNEST HOWARD POOL, *Assistant in Military Science*

THE UNIVERSITY LIBRARY

STAFF

PHINEAS LAWRENCE WINDSOR, Ph.B., *Librarian and Director of the Library School*

SABRA ELIZABETH STEVENS, A.B., B.L.S., *General Assistant*

MABEL LOUISE CONAT, A.B., *General Assistant*

GRACE ADELAIDE ENGLAND, A.B., *General Assistant*

Order Department—

FRANCIS KEESE WYNKOOP DRURY, A.M., B.L.S., *Assistant Librarian*

CHARLES EDWARD GRAVES, A.B., *Exchange Assistant*

AURELLA KNAPP, A.B., B.L.S., *Order Assistant (Periodicals)*

MYRTLE ANNA RENZ, B.L.S., *Order Assistant*

CLARA AGNES RICKETTS, A.B., B.L.S., *Order Assistant*

Loan Department—

EMMA REED JUTTON, B.L.S., *Loan Librarian*

STELLA BELLE GALPIN, A.B., B.L.S., *Loan Assistant*

SARAH ELIZABETH BRYAN, A.B., B.L.S., *Loan Assistant*

VIOLA FRASER, A.B., *Loan Assistant*

INA MAY BROWN, *Loan Assistant*

MILES OSCAR PRICE, B.S., *Shelf Assistant*

Binding Department—

JOSIE BATCHELLER HOUCHENS, A.M., B.L.S., *Binding Librarian*

Catalog Department—

PHILIP SANFORD GOULDING, A.B., *Catalog Librarian*

ADAH PATTON, B.L.S., *Classifier*

NELLIE MABEL ROBERTSON, A.B., B.L.S., *Catalog Assistant*

ANTOINETTE HELEN GOETZ, A.B., *Catalog Assistant*

*EDITH EMIGH, *Catalog Assistant*

LILLA M. ALEXANDER, *Catalog Assistant*

FANNIE DUNLAP, Ph.B., *Catalog Assistant*

BERTHA LEE SHARP, A.B., *Catalog Assistant*

AMANDA M. FLATTERY, A.M., *Catalog Assistant*

ZELIAETTE TROY, A.B., *Catalog Assistant*

MINNIE JOANNA BOLLMAN, A.B., *Catalog Assistant*

MARGARET WILLIAMS, A.B., *Catalog Assistant*

ELSIE BAECHTOLD, A.B., *Catalog Assistant*

NELLIE READ ROBERTS, A.B., *Catalog Assistant*

NELLE SIGNOR, A.B., *Catalog Assistant*

Reference Department—

ALICE SARAH JOHNSON, A.B., B.L.S., *Reference Assistant*

EMMA FELSENTHAL, Ph.B., B.L.S., *Reference Assistant*

MARGARET HUTCHINS, A.B., B.L.S., *Reference Assistant*

*Resigned, December 31, 1914.

Departmental Libraries—

MARY TORRANCE, A.B., B.L.S., *Assistant in Classics*

HAZEL SHAW, A.M., *Assistant in Economics and Sociology*

OLA M. WYETH, A.B., B.L.S., *Assistant in Germanic and Romance Languages*

MARION LEATHERMAN, A.B., *Assistant in History and Political Science*

JENNIE ADAH CRAIG, A.B., B.L.S., *Assistant in English*

MARGARET HERDMAN, A.B., *Assistant in Philosophy, Psychology and Education*

ETHEL BOND, A.B., B.L.S., *Assistant in Library Economy*

CHARLES EDWIN JANVRIN, Ph.B., B.L.S., *Assistant in Natural History*

MARY ELIZABETH LOVE, *Assistant in Natural History*

WINIFRED FEHRENKAMP, B.L.S., *Assistant in Architecture*

THE COLLEGE OF MEDICINE

(Congress and Honore Streets, Chicago)

FACULTY

- EDMUND JANES JAMES, Ph.D., LL.D., *PRESIDENT OF THE UNIVERSITY*
WILLIAM EDWARD QUINE, M.D., LL.D., *Professor of Medicine, Emeritus*
JOHN ERASMUS HARPER, A.M., M.D., *Professor of Ophthalmology, Emeritus*
HENRY PARKER NEWMAN, A.M., M.D., *Professor of Gynecology, Emeritus*
HENRY TURMAN BYFORD, A.M., M.D., *Professor of Gynecology, Emeritus*
FRANK BRECKENRIDGE EARLE, M.D., *Professor of Pediatrics, Emeritus*
DANIEL ATKINSON KING STEELE, M.D., LL.D., *Professor of Surgery and Clinical Surgery, Head of the Department, and Senior Dean*
OSCAR AUGUSTUS KING, M.D., *Professor of Psychiatry and Head of the Division of Psychiatry*
WILLIAM ALLEN PUSEY, A.M., M.D., *Professor and Head of the Department of Dermatology*
THOMAS ARCHIBALD DAVIS, M.D., *Professor of Clinical Surgery*
ADOLPH GEHRMANN, M.D., *Professor and Head of the Department of Hygiene*
WILLIAM MCINTYRE HARSHA, A.B., M.D., *Professor of Surgery and Clinical Surgery*
MAURICE LOUIS GOODKIND, M.D., *Professor of Clinical Medicine*
LEE HARRISON METTLER, A.M., M.D., *Professor and Head of the Division of Neurology and Clinical Neurology*
CASEY A WOOD, A.M., M.D., *Professor of Ophthalmology and Head of the Department*
DANIEL NATHAN EISENDRATH, A.B., M.D., *Professor of Surgery and Clinical Surgery (Genito-Urinary)*
JOSEPH MCINTYRE PATTON, M.D., *Professor of Clinical Medicine*
GEORGE PETER DREYER, A.B., Ph.D., *Professor of Physiology and Physiological Chemistry, Head of the Department of Physiology and Physiological Chemistry, and Junior Dean*
JOHN LINCOLN PORTER, M.D., *Professor of Orthopedic Surgery*
BERNARD FANTUS, M.D., *Professor of Pharmacology and Therapeutics*
CHARLES DAVISON, M.D., *Professor of Surgery and Clinical Surgery*
ALBERT JOHN OCHSNER, B.S., M.D., *Professor of Surgery and Clinical Surgery*
CHARLES SUMNER BACON, Ph.B., M.D., *Professor of Obstetrics and Head of the Department of Obstetrics and Gynecology*
CHARLES SPENCER WILLIAMSON, B.S., M.D., *Professor and Head of the Department of Medicine*
FREDERICK TICE, M.D., *Professor of Diseases of the Chest and Clinical Medicine*
CHANNING WHITNEY BARRETT, M.D., *Professor of Gynecology and Clinical Gynecology*
NORVAL PIERCE, M.D., *Professor of Surgery (Otology and Clinical Otology)*
ALBERT E HALSTEAD, M.D., *Professor of Surgery and Clinical Surgery*
ALBERT CHAUNCEY EYCLESHYMER, B.S., Ph.D., M.D., *Professor of Anatomy and Head of the Department*

DAVID JOHN DAVIS, Ph.D., M.D., *Acting Professor of Pathology, Acting Head of Department of Pathology, and Director of the Department of Experimental Medicine*

ASSOCIATE PROFESSORS

RACHELLE S YARROS, M.D., *Associate Professor of Obstetrics and Clinical Obstetrics*

WILLIAM ELLIOTT GAMBLE, B.S., M.D., *Associate Professor of Clinical Ophthalmology*

CHARLES EDWARD HUMISTON, M.D., *Associate Professor of Clinical Surgery*

WILLIAM FULLER, M.D., *Associate Professor of Surgery (Operative)*

EDWARD MILTON BROWN, M.D., *Associate Professor of Clinical Surgery*

JOSEPH C BECK, M.D., *Associate Professor of Surgery (Laryngology, Rhinology and Otology)*

NELSON MORTIMER PERCY, M.D., *Associate Professor of Clinical Surgery*

CHARLES MAYER JACOBS, M.D., *Associate Professor of Clinical Surgery (Orthopedic)*

JULIUS HAYES HESS, M.D., *Associate Professor of Pediatrics and Clinical Pediatrics*

ASSISTANT PROFESSORS

ULYSSES GRANT DARLING, M.D., *Assistant Professor of Psychiatry*

EDWARD LOUIS HEINTZ, Ph.G., M.D., *Assistant Professor of Medicine and Clinical Medicine*

RICHARD HUNT BROWN, M.D., *Assistant Professor of Clinical Surgery (Laryngology, Rhinology, and Otology)*

FRANK DONALD MOORE, M.D., *Assistant Professor of Surgery and Clinical Surgery*

JOHN MICHAEL LANG, M.D., *Assistant Professor of Clinical Gynecology*

JOHN WEATHERSON, C.E., M.D., *Assistant Professor of Medicine, Recording Secretary of the Faculty*

FREDERICK GILLETTE HARRIS, M.D., *Assistant Professor of Dermatology and Venereal Diseases*

MARY GILRUTH McEWEN, M.S., M.D., *Assistant Professor of Clinical Gynecology*

JONATHAN BROWN LORING, M.D., *Assistant Professor of Clinical Ophthalmology*

EPHRAIM KIRKPATRICK FINDLAY, M.D., *Assistant Professor of Clinical Ophthalmology*

CECIL V BACHELLE, M.S., M.D., *Assistant Professor of Obstetrics*

EMANUEL OLIVER BENSON, A.B., M.D., *Assistant Professor of Pediatrics and Clinical Pediatrics*

MAURICE LEWISON, M.D., *Assistant Professor of Physical Diagnosis*

FREDERICK GEORGE DYAS, M.D., *Assistant Professor of Surgery and Clinical Surgery*

STELLA MAY GARDNER, M.D., *Assistant Professor of Microscopical and Clinical Diagnosis*

HAIM I DAVIS, M.D., *Assistant Professor of Clinical Psychiatry*

GEORGE FARNSWORTH THOMPSON, B.S., M.D., *Assistant Professor of Surgery and Clinical Surgery*

OTTO HERMAN ROHRBACK, Ph.G., M.D., *Assistant Professor of Obstetrics and Clinical Obstetrics*

WILLIAM HENRY WELKER, A.C., Ph.D., *Assistant Professor of Physiological Chemistry*

MARY C LINCOLN, M.D., *Assistant Professor of Microscopical and Clinical Diagnosis*

WILLIAM HENRY BURMEISTER, A.B., M.D., *Assistant Professor of Pathology*

ALFRED OGLE SHAKLEE, B.S., M.D., *Assistant Professor of Pharmacology*

ASSOCIATE

JOSIAH J MOORE, B.S., M.D., *Associate in Experimental Medicine*

LECTURERS

ELMER DEWITT BROTHERS, M.S., LL.B., *Lecturer on Medical Jurisprudence*

MATTHEW MILLS, LL.B., *Alternate Lecturer on Medical Jurisprudence*

BERNARD JOHN CIGRAND, M.S., D.D.S., *Lecturer on History of Medicine*

INSTRUCTORS

ROBERT WILLIAM MORRIS, A.B., M.D., *Instructor in Medicine*

WALDEMAR EBERHARDT, B.S., M.D., *Instructor in Medicine*

JOHN EDDY HASKELL, A.B., M.D., *Instructor in Medicine*

CHARLES HERBERT PHIFER, M.D., *Instructor in Surgery*

MARY BLANCHE WHITE, M.D., *Instructor in Gynecology*

ERNEST SISSON MOORE, Ph.B., M.D., *Instructor in Clinical Medicine*

GEORGE J LORCH, Ph.G., M.D., *Instructor in Medicine*

HENRY EUGENE IRISH, M.D., *Instructor in Pediatrics*

HOWARD OSCAR SHAFER, M.D., *Instructor in Surgery*

IRVING HERBERT EDDY, M.D., *Instructor in Gynecology*

EGAN WALTER FISCHMANN, M.D., *Instructor in Gynecology*

JOHN ROSS HARGER, B.S., M.D., *Instructor in Surgery and Minor Surgery*

EDWARD A CORCORAN, M.D., *Instructor in Medicine*

ANNIE E BARRON, M.D., *Instructor in Obstetrics*

CLARA P SEIPPEL, M.D., *Instructor in Gynecology*

ALBERT JOHN SCHOENBERG, M.D., *Instructor in Gynecology*

WILLIAM CHESTER SMITH, M.D., *Instructor in Surgery (Operative)*

WILBUR MAYNARD FRENCH, M.D., *Instructor in Pediatrics*

JOHN MILTON BERGER, A.B., M.D., *Instructor in Surgery and Assistant in Clinical Surgery*

HARRY JEROME SMEJKAL, M.D., *Instructor in Medicine*

WESLEY JOHN WOOLSTON, M.D., *Instructor in Gynecology*

ARRIE BAMBERGER, M.D., *Instructor in Minor Surgery*

JOHN WILLIAM BIRK, M.D., *Instructor in Obstetrics*

HENRY LESTER BAKER, M.D., *Instructor in Surgery*

RICHARD CHARLES STEFFAN, M.D., *Instructor in Obstetrics*

ROBERT MOSSER, M.D., *Instructor in Clinical Medicine*

GEORGE LUTHER DAVENPORT, M.D., *Instructor in Surgery*

ISADORE BERNARD DIAMOND, M.D., *Instructor in Neurology*

CHARLES CLAYTON CLEMENT, M.D., *Instructor in Ophthalmology*

RAYMOND WILLIAM MCNEALY, M.D., *Instructor in Surgery*

FRANK CHAUVET, M.D., *Instructor in Physical Diagnosis*

LILLIAN ETHEL TAYLOR, M.D., *Instructor in Surgery (Laryngology, Rhinology and Otology)*

- CHARLES NEWBERGER, M.D., *Instructor in Obstetrics*
 PHILIP FRANK SHAFFNER, M.D., *Instructor in Dermatology*
 WALTER BRADFORD METCALF, M.D., *Instructor in Clinical Medicine*
 ADOLPH HARTUNG, M.D., *Instructor in Roentgenology*
 HOWARD C BALLENGER, M.D., *Instructor in Surgery (Laryngology, Rhinology and Otology)*
 FREDERICK VREELAND, M.D., *Instructor in Ophthalmology*
 EDWARD F FOX, M.D., *Instructor in Medicine*
 SOLOMON STROUSE, A.B., M.D., *Instructor in Clinical Medicine*
 EDWARD KENT ARMSTRONG, M.D., *Instructor in Pediatrics*
 FRENCH S CARY, M.D., *Instructor in Surgery (Genito-Urinary)*
 IRVING S KOLL, M.D., *Instructor in Surgery (Genito-Urinary)*
 CHARLES M MCKENNA, M.D., *Instructor in Surgery (Genito-Urinary)*
 WILLIAM BUTLER WEST, M.D., *Instructor in Ophthalmology*
 MEYER SOLOMON, M.D., *Instructor in psychiatry*
 EDWARD FRANKLIN LEONARD, M.D., *Instructor in Neurology*
 PAULINE ROSE KAPSA, M.D., *Instructor in Gynecology*
 FRANK J WRIGHT, M.D., *Instructor in Clinical Medicine*
 LOUIS RUDOLPH, M.D., *Instructor in Physical Diagnosis*
 DAVID ALEXANDER, M.D., *Instructor in Surgery (Orthopedic)*
 BERT LESLIE TAYLOR WOODS, M.D., *Instructor in Surgery (Operative) and Assistant in Clinical Surgery*
 ARCHIE JAMES GRAHAM, M.D., *Instructor in Surgery (Operative)*
 WALTER CHARLES HAMMOND, M.D., *Instructor in Obstetrics*
 LYNDON HARRIS, M.D., *Instructor in Medicine*
 F RAYMOND CROOKS, M.D., *Instructor in Medicine*
 FRANKLIN S WILSON, M.D., *Instructor in Clinical Medicine*
 PHILLIP M. DALE, M.D., *Instructor in Clinical Medicine*
 CARL J S RYDIN, M.D., *Instructor in Neurology*
 JAMES J MCCARTY, JR., A.B., M.D., *Instructor in Pediatrics*
 JOSEPH S COHN, M.D., *Instructor in Pediatrics*
 MAURICE L BLATT, M.D., *Instructor in Pediatrics*
 JACOB CARL KRAFFT, M.D., *Instructor in Pediatrics*
 OSCAR EUGENE NADEAU, B.S., M.D., *Instructor in Surgery (Surgical Pathology)*
 JOHN A CAVANAUGH, M.D., *Instructor in Surgery (Laryngology, Rhinology, and Otology)*
 CLIFFORD BULLEN, M.D., *Instructor in Surgery (Laryngology, Rhinology, and Otology)*
 EUGENE BERMINGHAM, M.D., *Instructor in Surgery (Laryngology, Rhinology and Otology)*
 JOHN HAROLD EDGEcombe, M.D., *Instructor in Clinical Surgery*
 EDWARD M HEACOCK, M.D., *Instructor in Obstetrics*
 ROY LEE MOODIE, A.B., Ph.D., *Instructor in Anatomy*
 CLAYTON S SMITH, B.S., M.S., Ph.D., *Instructor in Physiological Chemistry*
 FREDERICK HOWARD FALLS, A.B., M.D., *Instructor in Obstetrics and Pathology*
 THOMAS HARRIS BOUGHTON, M.D., M.S., *Instructor in Pathology*
 THOMAS S JONES, B.F.A., *Artist in the Department of Anatomy*

ASSISTANTS

- GEORGE WASHINGTON POST, JR., B.S., A.M., M.D., *Assistant in Clinical Surgery*
 ROBERT EMMETT FLANNERY, M.D., *Assistant in Clinical Surgery*

ELMER W SCHNORR, M.D., *Assistant in Clinical Surgery (Genito-Urinary)*
MAX MEYEROVITZ, M.D., *Assistant in Clinical Surgery*
ALEXANDER DONALD FERGUSON, M.D., *Assistant in Clinical Surgery*
HARRISON WILLIS MALTEY, M.D., *Assistant in Surgery (Orthopedic)*
FRANK J JIRKA, M.D., *Assistant in Physical Diagnosis*
MAX HUBENY, M.D., *Assistant in Roentgenology*
CHARLES WARREN STIGMAN, M.D., *Assistant in Clinical Surgery*
KARL ALBERT MEYER, M.D., *Assistant in Clinical Surgery*
FRANK LEE STONE, M.D., *Assistant in Gynecology*
MATHILDA OSBORN LICHNER, B.S., M.D., *Assistant in Gynecology*
LAWRENCE WELLS WHITMER, M.D., *Assistant in Ophthalmology*
GEORGIANA DVORAK THEOBALD, M.D., *Assistant in Clinical Ophthalmology*
EDWARD F SLAVIK, M.D., *Assistant in Clinical Ophthalmology*
GROVER TRACY, A.B., *Assistant in Physiological Chemistry*
RICHARD ROOT RUPERT, M.D., *Assistant in Clinical Surgery*
WILLIAM ARTHUR CLARK, A.M., M.D., *Assistant in Surgery (Orthopedic)*
CHARLES C CLARK, M.D., *Assistant in Clinical Surgery*
IRWIN WOODWARD BACH, M.S., M.D., *Assistant in Pathology*
WALTER EDWARD SIMMONDS, M.D., *Assistant in Physical Therapy*

STUDENT ASSISTANTS

J CRAIG SMALL, B.S., *Student Assistant in Physiological Chemistry*
ERIC GOSTA HAKANSSON, *Student Assistant in Mechanotherapy*
HOWARD E CURL, A.B., *Student Assistant in Physiology*
CHARLES P ECK, Ph.G., *Student Assistant in Pharmacology*
WALDO EMERSON GOLDEN, *Student Assistant in Pharmacology*
NATHAN SAMUEL SCHIFF, *Student Assistant in Pharmacology*
HARRY HULTS WILSON, *Student Assistant in Pharmacology*
JOSEPH SEILEN, *Student Assistant in Medicine*

THE COLLEGE OF DENTISTRY

(Harrison and Honore Streets, Chicago)

FACULTY

- EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY
FREDERICK BROWN MOOREHEAD, D.D.S., M.D., F.A.C.S., *Professor of Oral Surgery, Pathology, and Bacteriology*
DONALD MACKAY GALLIE, D.D.S., *Professor of Operative Dentistry and Operative Technics*
GEORGE WALTER DITTMAR, D.D.S., *Professor of Prosthetic Dentistry and Prosthetic Technics*
FREDERICK BOGUE NOYES, B.S., D.D.S., *Professor of Orthodontia and Histology, and Secretary of the Faculty*
EDGAR DAVID COOLIDGE, D.D.S., *Professor of Materia Medica and Therapeutics*
ALBERT CHAUNCEY EYCLESHYMER, B.S., Ph.D., M.D., *Professor of Anatomy*
GEORGE PETER DREYER, A.B., Ph.D., *Professor of Physiology*
DAVID JOHN DAVIS, B.S., M.D., *Professor of Pathology*
ELMER DEWITT BROTHERS, LL.B., *Lecturer on Dental Jurisprudence*
LOUIS SCHULTZ, D.D.S., M.D., *Assistant Professor of Oral Surgery and Pathology*
LOUIS E BAKE, D.D.S., *Assistant Professor of Operative Technics and Porcelain Art*
SOLOMON PERRY STARR, D.D.S., *Assistant Professor of Prosthetic Technics*
WILLIAM HENRY WELKER, A.C., Ph.D., *Assistant Professor of Chemistry*
FRANK JOSEPH BERNARD, D.D.S., *Instructor in Extracting*
WARREN C HAWTHORNE, B.S., A.M., *Instructor in Metallurgy*
JOHN C. MCGUIRE, D.D.S., *Superintendent of the Infirmary and Instructor in Radiography*
JACOB HYMAN KAPLAN, D.D.S., *Instructor in Operative and Prosthetic Dentistry*
NEWTON G THOMAS, A.B., D.D.S., *Instructor in Histology*
ROY LEE MOODIE, A.B., Ph.D., *Instructor in Anatomy*
CLAYTON S SMITH, B.S., M.S., M.D., *Instructor in Chemistry*
ARTHUR G NAUMAN, D.D.S., *Instructor in Materia Medica*
ELMER S RIGGS, A.B., A.M., *Lecturer on Comparative Anatomy*
W IRA WILLIAMS, D.D.S., *Instructor in Operative and Prosthetic Dentistry*
IRWIN WOODWARD BACH, M.S., M.D., *Instructor in Bacteriology and Pathology*
EDWIN PAUL SWATEK, D.D.S., *Assistant in Oral Surgery*
GROVER TRACY, B.S., *Assistant in Chemistry*
J CRAIG SMALL, *Student Assistant in Chemistry*
HOWARD E CURL, A.B., *Student Assistant in Physiology*
GEORGE W DIERKS, *Student Assistant in Prosthetic Technics*
EDWARD JOHN KREJCI, *Student Assistant in Materia Medica*
ROSCOE W UPP, *Student Assistant in Operative Technics*

THE SCHOOL OF PHARMACY

(Michigan Boulevard and Twelfth Street, Chicago)

FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

WILLIAM BAKER DAY, Ph.G., *Professor of Materia Medica and Botany, Acting Dean, and Secretary*

CLYDE MASON SNOW, Ph.G., *Assistant Professor of Pharmacy*

BERNARD FANTUS, M.D., *Lecturer on Physiology*

EDMUND NORRIS GATHERCOAL, Ph.G., *Instructor in Pharmacognosy*

HENRY WILLIAM COLSON, Ph.C., *Instructor in Chemistry*

BEN LEE EICHER, Ph.C., *Instructor in Pharmacy*

ELDIN VERNE LYNN, A.M., *Instructor in Chemistry*

STANDING COMMITTEES OF THE FACULTY

COMMITTEES OF THE SENATE

Committee on Educational Policy—Professor Forbes (chairman), Dean Kinley (*ex officio*), Professor Coffman, Professor (E. B.) Greene, Professor Mumford, Professor Pomeroy, Professor Schmidt

Committee on Library—Professor Daniels (chairman), Professor Carman, Professor Garner, Professor Goebel, Professor (H. A.) Harding, Professor Trelease, Librarian Windsor

Committee on Athletics—Professor Hale (chairman), Dean Clark, Professor Goodenough, Director Huff, Professor Johnston

COMMITTEES OF THE COUNCIL

Committee on Attendance for Men—Associate Professor Pease (chairman), Assistant Dean Warnock (Secretary *ex officio*), Assistant Professor Detlefsen, Dr. Borger, Mr. Dent

Committee on Attendance for Women—Assistant Professor Goldthwaite (chairman), Acting Dean Kyle (secretary *ex officio*), Assistant Professor Simpson

Committee on Discipline for Men—Dean Clark (chairman *ex officio*), Professor Barton, Professor Decker, Professor Goodenough, Assistant Professor Rankin, Assistant Professor Scott

Committee on Discipline for Women—Acting Dean Kyle (chairman *ex officio*), Director Moulton, Miss Curtis

Committee on Student Organizations and Activities—Assistant Professor Watson (chairman), Dean Clark, Acting Dean Kyle, Professor Mosier, Assistant Professor Schwartz

Committee on Student Publications—Assistant Professor Scott (Chairman), Assistant Professor Robertson, Mr. Burlison

Auditing Committee for Student Organizations and Publications—Assistant Dean Warnock (chairman), Mr. Scovill, Mr. Noerenberg

Advisory Committee on Home-coming—Dean Clark (chairman), Dean Richards, Dean Harker

Committee on Students' Progress (membership *ex officio*)—Dean Clark (chairman), Acting Dean Kyle, Assistant Dean Meyer, Assistant Dean Miller, Assistant Professor Rankin, Professor Hale

Committee on Loan Funds—Dean Clark (chairman), Assistant Dean Meyer, Assistant Dean Miller

Committee on the Students' Hospital Benefit Fund—Dean Clark.

Committee on Accredited Schools—Professor Coffman (chairman), Professor Hollister, Assistant Professor Paul, Assistant Professor Shaw, Registrar McConn

Committee on Appointment of Graduates—Professor Bagley (chairman), Professor Balke, Professor Hollister

Committee on Catalog—Professor Ward (chairman), Professor Carman, Assistant Professor Scott, Registrar McConn

PART I
GENERAL INFORMATION

LOCATION

The University of Illinois is situated in Champaign County, about fifty miles northeast of the geographical center of the State. It is 126 miles south of Chicago, 118 miles west of Indianapolis, 164 miles northeast of St. Louis.

The campus of the University lies just within the corporate limits of the city of Urbana and is bounded on the west by the city of Champaign. These two municipalities form in fact one community of about twenty-four thousand inhabitants. The city halls of the two towns are about two miles apart, the campus half way between. The railway, express, telegraph, and telephone services of both cities are, therefore, equally available for the University. Mail for the institution itself should be directed to Urbana to insure prompt delivery. The Urbana postoffice maintains a sub-station at the University, located in the Library Building.

Urbana-Champaign

The cities of Urbana and Champaign are in the heart of the "Corn Belt" and form the business and social center of a rich farming community.

Both cities are well paved, well drained, and provided with good water supply. In matters pertaining to health, conditions are excellent. There is a hospital within three blocks of the campus, in which students may be cared for at moderate expense.

The University has no dormitories, but the number of boarding houses is large, and there are forty-two residence halls erected by fraternities, sororities, and local clubs. The material needs of the student body are, therefore, provided for.

The moral and religious conditions of the University community are favorable to the welfare of the students. There are thirty churches, representing eleven denominations, and a number of students' religious associations, leagues, and guilds, including strong Young Men's and Young Women's Christian Associations.

Under a special State law, the liquor traffic has been barred from all territory within a radius of four miles from the University.

Railway Connections

The University is connected with neighboring cities in Illinois, including Bloomington, Danville, Decatur, Peoria, and Springfield, and also with St. Louis, by the electric interurban lines of the Illinois Traction System. It will shortly be connected by other interurban lines with Kankakee and Chicago.

It may be reached from Chicago and the north and from points in the south by the Illinois Central Railroad (time from Chicago by express trains, three hours and ten minutes), being on the direct line from Chicago to Cairo and New Orleans. It is joined to the east and the west by the Peoria & Eastern Division of the "Big Four" Route (Cleveland, Cincinnati, Chicago & St. Louis Railway), as well as by the division of the Wabash Railway which

connects Kansas City and St. Louis with Detroit and Buffalo. It is also reached from the west by the Havana branch of the Illinois Central Railroad and from Decatur by another branch of the same system.

The time from New York by way of the Wabash and "Big Four" routes is twenty-six hours, by way of Chicago and the Illinois Central, twenty-four hours. Washington and Philadelphia are about equally distant in time. Pittsburg, Buffalo, Kansas City, and Omaha may be reached in fifteen, fourteen, thirteen, and seventeen hours respectively.

The station of the Illinois Central Railroad is in Champaign. The Wabash and "Big Four" have stations in both Champaign and Urbana. These several stations are each a little more than a mile distant from the University campus. There are several hotels in Champaign and Urbana within easy reach of the University, the Beardsley in Champaign and the Columbian in Urbana being the largest.

HISTORY

1862. The Morrill Land Grant

By this act the national government donated to each state in the Union public land scrip, in quantity equal to 30,000 acres for each senator and representative in Congress, "for the endowment, support, and maintenance of at least one college, whose leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts, * * * * in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

On account of this grant the State pays the University, semi-annually, interest at the rate of five per cent on about \$610,000 and deferred payments on land contracts amounting approximately to \$35,000.

Location chosen

To secure the location of the University several counties entered into competition by proposing to donate to its use specified sums of money or their equivalent. Champaign County offered a large brick building in the suburbs of Urbana, erected for a seminary and nearly completed, about 1,000 acres of land, and \$100,000 in county bonds. To this the Illinois Central Railroad added \$50,000 in freight.

1867. Incorporation

The institution was incorporated February 28, 1867, under the name of the Illinois Industrial University. It was placed under the control of a Board of Trustees, consisting of the Governor, the Superintendent of Public Instruction, and the President of the State Board of Agriculture, *ex officio* members, and twenty-eight citizens appointed by the Governor. The chief executive officer was called the Regent, and was made an *ex officio* member of the Board and the presiding officer of both the Board of Trustees and the Faculty. (See also 1873 and 1887 below.)

1867. Dr. Gregory Regent

On March 12, 1867, John Milton Gregory, LL.D., was elected Regent of the University. On April 1, 1867, Dr. Gregory accepted the position and entered upon his duties. He served as Regent until September 1, 1880.

1868. The University opened

The University opened on March 2, 1868. The number of students enrolled was about fifty; the faculty consisted of the Regent and two professors. During the first term another instructor was added, and the number of students increased to 77—all young men.

During the first term instruction was given in algebra, geometry, physics, history, rhetoric, and Latin. Work on the farm and gardens or about the buildings was at first compulsory for all students. In March of the next year, however, compulsory labor was discontinued, save when it was to serve as a part of instruction.

1868-9. The first laboratories

During the autumn of 1868 a chemical laboratory was fitted up; and laboratory work in botany was begun the following year.

1870. Pioneer shop instruction

In January, 1870, a mechanical shop was fitted up with tools and machinery, and here was begun the *first shop instruction* given in any American university. In the summer of 1871 the Wood Shops and Testing Laboratory (burned on June 9, 1900) were erected and equipped for students' shop work in both wood and iron.

1870. Women admitted

On March 9, 1870, the Trustees voted to admit women as students. In the year 1870-71 twenty-four availed themselves of the privilege. Since that time they have constituted from one-sixth to one-fifth of the total number of students.

1873. First reorganization of the Board of Trustees

At this time the number of members was reduced from thirty-two (see 1867 above) to eleven—the Governor and the President of the State Board of Agriculture, *ex officio*, and nine others, who were still appointed by the Governor. Beginning at this time also, the President of the Board has been chosen by the members from among their own number for a term of one year. (See also 1887 below.)

1877. Authority to confer degrees received

According to the original State law, the usual diplomas and degrees could not be granted by the University; certificates showing the studies pursued and the attainments in each were given instead. The certificates proved unsatisfactory to the holders, and in 1877 the legislature gave the University authority to confer degrees and issue diplomas.

1880-81. Dr. Peabody Regent

In June, 1880, Regent Gregory's resignation was accepted to take effect September 1, 1880, and Selim Hobart Peabody, A.B., Ph.D., Professor of Mechanical Engineering and Physics, was made Regent *pro tempore*. At the next annual meeting, in March, 1881, he was elected Regent.

1885. Change of name

In this year the General Assembly changed the name of the institution from the *Illinois Industrial University* to the *University of Illinois*.

1885. The State Laboratory of Natural History transferred to the University
See page 430.

1887. Second reorganization of the Board of Trustees

In 1887 a law was passed making membership in the Board elective, at a general State election, and restoring the Superintendent of Public Instruction as an *ex officio* member. There are now, therefore, three *ex officio* and nine elective members. (For the previous organization of the Board see 1867 and 1873 above.)

1887. The Agricultural Experiment Station established at the University
See page 425.

1890. Additional Federal endowment

In 1890 the Congress of the United States made further appropriations for the endowment of the institutions founded under the act of 1862. Under this

enactment each such college or university received the first year \$15,000, the second year \$16,000, and in each succeeding year a sum larger by \$1,000 than the amount of the preceding year, until the amount reached \$25,000; this sum was to be paid yearly thereafter.

1891. Dr. Burrill Acting Regent

In June, 1891, Regent Peabody's resignation was accepted, to take effect September 1, and in August Thomas Jonathan Burrill, A.M., Ph.D., Professor of Botany and Horticulture, was appointed Acting Regent. Dr. Burrill served in this capacity until September, 1894.

1892. The Graduate School

Beginning with this year, graduate work was undertaken under the name of the Graduate School, but without the organization of a separate faculty.

1894. The Summer Session

The first Summer Session of the University was authorized by a vote of the Trustees on March 13, 1894, and was opened in June of that year.

1894. Dr. Draper President

On April 13, 1894, Andrew Sloan Draper, LL.D., was elected Regent. He accepted May 10, 1894. On August 1 his title was changed to President. Dr. Draper entered upon his duties on August 1, 1894. He served until June, 1904.

1896. The School of Pharmacy

On May 1, 1896, the Chicago College of Pharmacy, founded in 1859, became the School of Pharmacy of the University of Illinois.

1897. The College of Medicine

Negotiations looking to the affiliation of the College of Physicians and Surgeons of Chicago with the University, which had been going on for several years, were concluded by the Board of Trustees March 9, 1897. Accordingly, the College of Physicians and Surgeons became, on April 21, 1897, the College of Medicine of the University of Illinois. (The College of Medicine was discontinued on June 30, 1912, but was re-opened on February 12, 1913.)

1897. The School of Music

By vote of the Trustees on June 9, 1897, the department of music, which had been reorganized and enlarged in 1895, was erected into the School of Music, with a separate faculty and organization.

1897. The State Water Survey authorized

See page 432.

1897. The Library School

In 1897 the School of Library Economy, which had been established in 1893 at the Armour Institute of Technology in Chicago, was transferred to the University, the Director of that school was appointed Librarian of the University Library, and the Library School was opened.

1897. The College of Law

Pursuant to an action of the Board of Trustees, taken December 8, 1896, the School of Law was organized, and was opened September 13, 1897. The course of study covered two years, in conformity with the then existing requirements for admission to the bar of Illinois. In the following November, however, the Supreme Court of the State announced rules relating to examina-

tions for admission to the bar which made three years of study necessary, and the course of study in the Law School was immediately rearranged on that basis. On February 9, 1900, the name of the School of Law was changed, by vote of the Board of Trustees, to *College of Law*.

1899. *The State Entomologist's Office permanently established at the University*
See page 431.

1900. *Courses in Business Administration*

In 1900 the General Assembly made an appropriation for the establishment of courses of training for business life, and, in accordance with that action, the Trustees approved the organization of the Courses in Business Administration.

1901. *The College of Dentistry*

In accordance with an action taken by the Board of Trustees on March 12, 1901, a School of Dentistry was organized as a department of the College of Medicine. The School was opened October 3, 1901. The name was changed to *College of Dentistry* on April 27, 1905. (The College of Dentistry was discontinued on June 30, 1912, but was re-opened on October 1, 1913.)

1903. *The Board of Examiners in Accountancy created*
See page 435.

1903. *The Engineering Experiment Station established*
See page 428.

1904. *Dr. James President*

On March 9, 1904, President Draper's resignation was accepted, to take effect July 1. On August 23, 1904, Edmund Janes James, Ph.D., LL.D., was elected President. He accepted on August 26, 1904, and entered upon his duties in the fall of that year.

1905. *The School of Education*

By a vote of April 27, 1905, the Board of Trustees established the School of Education, to provide for the professional training of teachers.

1905. *The State Geological Survey established*
See page 433.

1906. *Adams Fund*

This fund was created by an act of Congress dated March 16, 1906, and provides for an appropriation of \$5,000 for the year ending June 30, 1906, and an increase of \$2,000 a year for five years. The present appropriation to the University under the Adams Act is, therefore, \$15,000 a year. Its use is limited to the necessary expenses of original research and experimental work in agriculture.

1907. *Nelson Fund*

This fund was created by an act of Congress dated March 4, 1907, and carried with it an appropriation of \$5,000 for the fiscal year ending June 30, 1908, and an annual increase of \$5,000 for four years. The present appropriation to the University under the Nelson Act is, therefore, \$25,000 per year. Its uses are identical with those of the Morrill Fund.

1906-7. *The School of Railway Engineering and Administration*

On January 30, 1906, the Board of Trustees created in the College of Engineering a department of railway engineering; on January 22, 1907, supple-

menting that action, it established the School of Railway Engineering and Administration.

1906-7. The Graduate School organized as a separate faculty

The General Assembly appropriated \$50,000 for the Graduate School, and the Executive Faculty of that school was organized.

1909. A Mine Rescue Station established at the University

See page 436.

1911. The Mill Tax

The General Assembly passed a law providing that in the year 1912, and annually thereafter, the proceeds of a tax of one mill for each dollar of the assessed valuation of the taxable property of the State should be set apart as a fund for the maintenance of the University.

1912. The Colleges of Medicine and Dentistry discontinued

The Colleges of Medicine and Dentistry were discontinued on June 30, 1912.

1913. The Colleges of Medicine and Dentistry reopened

On February 12, 1913, the Board of Trustees accepted the gift of the capital stock of the College of Physicians and Surgeons, donated to the University by the alumni and other friends of medical education in Chicago, and the College of Medicine was reopened.

The College of Dentistry was reopened on October 1, 1913.

1913. The College of Liberal Arts and Sciences

In this year the College of Literature and Arts and the College of Science were united to form the College of Liberal Arts and Sciences.

1913. Miners' and Mechanics' Institutes established

See page 438.

EQUIPMENT

BUILDINGS AND GROUNDS

The land occupied by the University and its several departments embraces 300 acres, besides a farm of 800 acres. There are at the present time some forty-five buildings on the campus.

Liberal Arts Group

University Hall (erected 1873) is the "old main building" of the University. It occupies three sides of a quadrangle, and is five stories in height. It is devoted to class rooms and offices.

Lincoln Hall (erected 1911) has a frontage of 230 feet. The exterior is brick, stone, and terra cotta. This building provides for the advanced work of the departments of the classics, English, Romance languages, Germanic languages, history, economics, education, political science, sociology, and philosophy. The first three floors provide, in addition to the ordinary class and consultation rooms, seminar libraries and conference rooms. On the fourth floor are research rooms and two museums, the Museum of Classical Art and Archeology, and the Museum of European Culture.

The Commerce Building (erected 1912) is a fireproof building three stories high, 153 feet on the front and 60 feet deep, with a one-story annex containing a lecture room 48 feet square. The building has a total floor area of about 29,000 square feet and is to house the work in business administration with its various class rooms, offices, and laboratories. The exterior first story finish is buff Bedford stone; the second and third stories are of brick with carved stone trimmings and cornice. The roof is of tile, and the interior trim is of dark oak throughout.

An addition to the Commerce Building, under construction. This fireproof structure, three stories high, 109 by 153 feet, will house the offices of the President, Registrar, Comptroller, Dean of Men, Supervising Architect, and others. The material and finish are like those of the Commerce Building.

General Science Group

Natural History Hall (old part erected 1892; addition 1909) is the largest building on the campus, covering a ground area 135 feet by 275 feet. It is occupied by the departments of botany, entomology, zoology, physiology, geology, and mathematics, together with the offices and equipment of the State Geological Survey, and the State Natural History Survey, and the office of the State Entomologist. The offices of the President, the Registrar, and the Dean of Men, and the Business Office, are also housed in this building. A fireproof museum 51 feet by 63 feet in size, equipped with fireproof and dust-proof cases, occupies the center of the building.

The Laboratory of Physics (erected 1909) is a three-story fireproof brick building trimmed with Bedford limestone. The length is 178 feet and the depth of the wings is 125 feet. The large lecture room has a seating capacity

of two hundred sixty-two. A one-story annex, 78 by 28 feet, contains the ventilating and heating fans and the machine shop of the department. The total available floor area, exclusive of the basement, is about 60,000 square feet. The large laboratories and the recitation rooms are mostly in the west wing. The east wing is of heavy construction and contains about thirty smaller laboratories for advanced experimental work. The blue print department of the University occupies rooms on the top floor of the building. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents of a wide range in amperes and in volts are available in all parts of the building.

The Chemical Laboratory (erected 1901-2) is a three-story building, the ground plan of which is shaped like the letter E. The extreme dimensions are 230 feet along the front and 116 feet along the wings. The middle rear wing contains the lecture amphitheater, which seats 390. The end wings contain the general laboratories. The central part of the building is occupied by offices, museum, class and seminar rooms, supply rooms, and a number of special rooms for research work. There is a basement, which contains the ventilating plant and rooms for assaying and metallurgy. In this building are located also the general office and laboratories of the State Water Survey.

An addition to the Chemical Laboratory is in process of construction. When completed this will give a building in the form of a hollow square in which there will be 164,000 square feet of usable space, more than twice the space of the present laboratory. The addition is to be built with fireproof construction and will be equipped to provide for instruction in all lines of chemistry.

The Astronomical Observatory (erected 1896) is a brick building with extreme dimensions of 75 by 55 feet. It has three wings and is surmounted by a dome 25 feet in diameter. An adjacent building with a 15-foot dome was erected in 1914.

The Ceramics Laboratory (erected 1910) is a two-story brick building in which are provided a general laboratory, plaster room, pottery room, machine room, drawing room, library, recitation rooms, chemical laboratory, and office. (See also the Mining and Ceramics Laboratory under "Engineering Group" below.)

The Entomology Building (erected 1905 for the use of the State Entomologist and his staff) is a two-story building 48 by 20 feet, with basement store-rooms, and with two insectary wings of greenhouse construction, each 25 by 20 feet. It contains the office of horticultural inspection, a stenographer's room, rooms for the assistant inspectors and insectary assistants, and a large fireproof vault. The glass-covered wings are equipped for experimental entomology and life-history studies.

The Botany Annex (erected 1914) is a greenhouse laboratory covering 5,000 square feet of ground, divided into compartments that are severally provided with devices for controlling humidity and temperature within close limits so as to make exact experimentation possible in the fields of plant physiology and pathology. To this laboratory is attached a reconstructed two-story dwelling, giving working and class rooms for use in connection with the experiments conducted under glass.

The Ecological Laboratory (remodeled and reconstructed in 1914 from a residence at 1210 Springfield avenue) is equipped for the experimental study of the relations of animals to environment.

Engineering Group

Engineering Hall (erected 1894) is a four-story building, with a frontage of 200 feet, a depth of 76 feet on the wings and 138 feet on the center, and a floor area of 47,000 square feet. The first and second floors are occupied by the offices, the recitation rooms, and the instrument and drafting rooms of the departments of civil engineering and municipal and sanitary engineering. The engineering lecture room, on the second floor, has a seating capacity of two hundred twenty-five. The third floor is occupied by the offices of the Dean of the College of Engineering and Director of the Engineering Experiment Station, and by the office, recitation, and drafting rooms of the department of mechanical engineering. A portion of the third floor and all of the fourth is occupied by the department of architecture.

The Electrical Engineering Laboratory (erected 1898) is a two-story brick building with floor area of 18,000 square feet. The basement contains the departmental shop, the storage battery room, the electric furnace room, and rooms for electrical research. The first floor contains the undergraduate laboratory, the instrument room, the high potential laboratory, and the drafting, lecture, and recitation rooms. The second floor contains the photometric laboratory, the offices, the departmental library, and a room used by the Electrical Engineering Society.

The Mechanical Engineering Laboratory (erected 1905) is a brick building with a frontage of 120 feet, a total depth of 182 feet, and a floor area of 24,000 square feet. The front section is two stories high, and contains offices, lecture and computation rooms, and an instrument room. Back of this are three bays. The middle bay is provided with a concrete testing floor and a 10-ton three-motor traveling crane of 38-foot span. The north bay contains a 5-ton traveling crane and is used for laboratory work in connection with the departments of civil engineering and theoretical and applied mechanics.

The Laboratory of Applied Mechanics (erected 1901-2) is a brick building having a floor area of 16,000 square feet. The front part contains the materials testing laboratory, and the rear wing contains the hydraulics laboratory.

The Mining and Ceramics Laboratory (erected 1912) is a one-story building with a floor area of 11,200 square feet. It contains a kiln room for the department of ceramics, having an area of 4,300 square feet, a mining engineering laboratory of 3,600 feet area, and a chemical laboratory for the department of mining engineering. There are also offices and class rooms for the department of ceramics and a Mine Rescue Station equipped and arranged for training men in the methods of mine rescue work.

The Locomotive Testing Laboratory (erected 1912) is a fireproof building with brick walls 117 feet long and 42 feet wide, connected by a spur with the Illinois Traction System tracks. It houses a locomotive testing plant, which consists of supporting wheels on which rest the drivers of the locomotive to be tested, a dynamometer to which the locomotive drawbar is attached, and which measures the tractive force exerted by the locomotive, water brakes for absorbing the power developed by the locomotive, and other auxiliary apparatus. The exhaust gases pass through a "transite" (or asbestos board) duct to a large fan which forces them through a reinforced concrete cinder separator; the separator removes the cinders and discharges the gases into the air through a brick stack eight feet in height.

The Transportation Building (erected 1912) is a three-story fireproof building of brick trimmed with stone. The general dimensions of the building are 65x189 feet and the total floor area is 34,225 square feet. The first and second floors of the building are occupied by the departments of railway and mining engineering, and the third floor is occupied by the department of general engineering drawing.

The Metal Shops (erected 1902) occupy a one-story brick building with a floor area of 12,000 square feet, containing four office rooms, a machine shop, and a forge shop. The machine shop is 48 by 140 feet. Power is supplied by a 20-horsepower electric motor. A 3-ton traveling crane of 10 foot span covers the center of the floor for the entire length.

The Wood Shop (erected 1901-2) and the *Foundry* (added 1904) occupy a brick building which has a floor area of 16,000 square feet. The part of the building devoted to the wood shop contains a bench room, lathe room, machine room, and various smaller rooms for lectures, exhibition purposes, etc. The part devoted to the foundry has a molding floor 35x80 feet, traversed by a 5-ton traveling crane, and a basement room for the storage of materials.

Agricultural Group

The Agricultural Building (erected 1900) consists of four separate structures, built around a court and connected by corridors. The court was enclosed in 1912 and divided into five large class rooms. The main building, three stories in height, contains offices, class rooms, and laboratories for the departments of agronomy, animal husbandry, dairy husbandry, horticulture, and veterinary science; the chemical laboratory of the Experiment Station; administration rooms; and assembly room (Morrow Hall) with a seating capacity of 500. The other three buildings are two stories high; one is for dairy manufactures, one for farm crops, and one for veterinary science and stock judging. These buildings are of stone and brick, roofed with slate, and contain 113 rooms and a total floor space of about two acres. An adjacent glass structure serves the departments of agronomy and horticulture. There are, in addition to these buildings, three dwellings, three barns, and a greenhouse.

The Agronomy Building (erected 1904-5) is 50 by 100 feet in size, of brick and slate, trimmed with stone. It contains a field laboratory for crop work in which yields of experimental plats are studied, sample seeds stored, and specimens preserved.

The Farm Mechanics Building (erected 1906-7) is a three-story brick structure, containing class rooms, offices, lecture rooms, drafting room, library, laboratories, and tool and storage rooms. The third floor, which is reached by an elevator, furnishes storage room for the greater part of \$16,000 worth of farm machinery loaned the College by various manufacturing companies and used for laboratory work. The facilities afforded by this building, with its equipment, make possible the assembling, testing, and adjusting of all the important machines used in farm operations.

The Stock Pavilion (erected 1913) is a fireproof building 54 feet high on the front and 148 feet deep with circular ends 92 feet in diameter and 20 feet high. The total ground area is 30,000 square feet, and the show arena is 216 feet long and 65 feet wide. Seats of concrete provide accommodations for 2000. Arrangements are to be made providing for a division of the arena

into three parts, giving three separate judging rooms for instructional purposes. The building also contains class rooms and offices. Stabling will be provided in a separate structure. The exterior is of brick and terra cotta, renaissance in design, the frieze being enriched with medallions of animals' heads.

The Animal Husbandry Cattle Feeding Plant has a capacity for feeding 150 steers at a time. It consists of open and closed sheds with paved lots adjoining, with a storage barn 44 by 72 feet and an experimental silo.

The Beef Cattle Building (erected 1904-5) is a one-story structure of brick and slate, trimmed with stone, 217 feet across the front, with a wing at either end 33 by 49 feet; the central portion rises two stories and is used for the storage of feed. Other portions of the building are used as quarters for the breeding herd, and will accommodate about 100 head of cattle.

The Sheep Barn is a wooden structure consisting of a main barn 36 by 90 feet, and a shed, opening to the south, 25 by 100 feet in size. A 6-foot aisle, lined by pens on each side, runs through the center of the barn. This building besides accommodating the University flock is used for experimental work. Its location and construction insures dry footing and ample light and ventilation throughout the year.

Other buildings for the accommodation of live stock are the horse barn, the piggery, and two large barns on the South Farm.

The Experimental Dairy Barns (erected 1912) comprise a round barn 70 feet in diameter with a reinforced concrete silo in the center, a semi-detached rectangular structure 40 by 70 feet with a Grout silo adjacent, and a small dairy house and shop 26 by 32 feet. The barns are of frame construction on brick walls with solid floors of the mill type of construction, and contain feed rooms, hay lofts, and other accommodations for the experimental dairy herd. The dairy house is of frame construction, two stories in height, and contains office, shop, coal room, dairy room, and four sleeping rooms for employees.

The Horticulture Building (erected 1904-5) is a structure of brick and slate trimmed with stone, approximately 50 by 100 feet in size. It is used as a field laboratory for horticultural tests, and contains sorting rooms, storage rooms, and a laboratory for the mixing of spraying materials and other operations in connection with the horticultural work.

The Horticulture Greenhouse Group (erected 1912-13) includes (1) a floricultural group and (2) a vegetable and plant breeding group.

(1) *The Floriculture Greenhouse Group* (erected 1912-13) consists of a two-story and basement service building 93 by 37 feet, and the following glass structures: four houses each 105 by 28 feet, three houses each 105 by 35 feet, one corridor house 139 by 10 feet, one storage house 50 by 12 feet, and a palm house 80 by 40 feet. The service building is of hollow tile and cement construction, and contains laboratories, lecture room, herbarium room, offices, and seminar room, as well as potting, storage, and work rooms.

(2) *The Vegetable and Plant Breeding Greenhouse Group* (erected 1912-13) consists of a glass house for vegetable growing 105 by 28 feet, two houses for plant breeding each approximately 80 by 30 feet, a wire house 80 by 30 feet, and a two-story and basement service building 82 by 36 feet, containing laboratories, work rooms, class rooms, offices, and storage rooms. The type of construction of this building is the same as that of the floriculture service building.

Law Building

The Law Building (erected 1878; remodeled 1902 and 1912) is the second oldest building in the University group. It has two stories and a basement. The upper floor contains the Law Library, the students' conference room, the private offices of the members of the law faculty, and the Moot Court Room, a model court room with a seating capacity of four hundred. On the main floor are the recitation rooms, the Dean's offices, and the faculty room. In the basement are the lockers, the students' reading room, and a court room for the Law Clubs.

Buildings for General University Use

The Library Building (erected 1896-7; an addition to the stack room erected 1914) is modern Romanesque in style, is built of Minnesota sandstone, and measures 167 by 141 feet, with a tower 132 feet high. The first floor, or basement, contains the rooms of the catalog and order departments, the bound newspapers, and the University Station Postoffice. The second, or main floor, contains the general reference room, the periodical reading rooms, a small conference room, and the delivery room, which opens into the second story of the stack. The third floor contains the study room, lecture rooms, and office of the Library School, faculty study room, and the office of the librarian and assistant librarian. The five-story book stack is a rear wing to the building, separated from it by a fireproof wall. The delivery room is open to the roof and is lighted by a dome of art glass; the lunettes are decorated with frescoes symbolic of the four older colleges of the University—Literature and Arts, Science, Agriculture, and Engineering.

The Auditorium (erected 1907-8) is a brick and stone building for general meeting purposes. It contains an auditorium seating about 2,200, a memorial vestibule, and a four manual organ. All general University exercises, including convocations and the commencement gatherings, are held in this building.

The Men's Gymnasium (erected 1901) is a three-story building of stone and pressed brick, 100 by 150 feet. On the first floor there is a swimming pool, 26 feet wide, 75 feet long, and 8 feet deep at the lower end, lined with white enamel bricks. This floor contains also the general locker room, which is fitted up with all-metal lockers, and with shower bath, and steam baths; rooms for the University athletic teams; a room for visiting teams; a special dressing room for members of the faculty; and offices for the physical director and the instructors in athletics. The entire second floor is one large room, which is fitted up with all modern appliances for gymnastic exercises. The third floor contains an elevated running track, 15 laps to the mile, which is properly banked on the turns to secure the greatest speed and comfort in running.

The Armory (erected 1889-90) has a clear floor space of 15,000 square feet in one hall. It is equipped with racks for 1,200 stands of arms. An annex provides for two pieces of field artillery.

The New Armory (under construction 1913-14) comprises a drill room with a clear area 200x400 feet and a height of 98 feet at the center, the roof being carried by fourteen three-hinged steel arches. The sides are of hollow tile and the ends, supported by columns, are of steel, glass, tile, and concrete, with wood frames and sashes. The drill floor is of sufficient area to permit the maneuvering of an entire battalion of the cadet regiment. Provision has

been made for the addition of a balcony around the drill floor with seats for 3,000 and for the addition of three-story facades along the sides flanked by towers at each end. This will provide space for company rooms, locker rooms, shooting tubes, and class rooms.

The Woman's Building (erected 1905) is in the New England colonial style of architecture, of reddish brown brick, with white stone trimmings. The central part of the structure is the woman's gymnasium. On the lower floor there are swimming tank, lockers, dressing rooms, and baths. The upper floor is devoted to the main gymnasium, which is 92 by 50 feet. The north wing of the building is given to the department of household science, and the south wing provides rooms for the social life of the women students. The addition to the Woman's Building (erected 1912) is a three-story fireproof building with basement. It is 200 feet long on the front and 83 feet on each connecting wing, having 43,000 square feet of floor area. It has a large colonnade with towers on the front and two smaller colonnades on the north and south of the inner court. The addition is similar to the old building in finish and supplements the working space of the departments using it. It has two halls for literary societies and a modern flat on the upper floor, and an institutional kitchen and large dining room on the second floor. There are also offices for the Dean of Women and the Director of the Courses in Household Science, laboratories, social rooms, and space for the expansion of gymnasium work.

The President's House

The President's House (erected 1896) is a three-story frame building, in the colonial style. The first story is designed primarily for entertaining; large reception and dining parlors are so arranged as to open together into a central corridor. The second and third stories provide library and living rooms.

Service Buildings

The Central Heat and Power Plant (erected 1902; addition 1910) is 55 by 120 feet. It contains boilers aggregating 1,800 horsepower. A supplemental boiler and power plant, designed ultimately to carry the load of the present station, is equipped with boilers of 1,000 horsepower. These two stations furnish steam for heating and power to all buildings on the campus. A power plant containing a 250-kilowatt Allis-Chalmers direct connected steam engine and dynamo, a 125-kilowatt direct connected Westinghouse engine and generator, and a 100-kilowatt Curtiss turbo-generator, together with the accessories necessary to a complete power station, supplies current for light and power to all parts of the grounds. The pipe lines of the heating system and the circuits for distributing electricity are carried from the central plant to the several buildings through brick and concrete tunnels and clay and concrete conduits. Altogether there are now 6,275 feet of tunnels and 3,800 feet of conduit for the distribution of steam, and 7,000 feet of conduit for the distribution of electricity. The new boiler and power plant provides temporary quarters for the electric test car of the department of railway engineering.

The Pumping Station of the University water-works is a brick building, 38 by 73 feet, connected with the central heating station. Four 8-inch wells, 145 feet deep, and one 12-inch well 148 feet deep supply the University with water. A masonry reservoir provides for a fire-reserve supply. The pumps, tanks, and connections are arranged to give opportunities for experimental

work, and also to vary the working conditions in the adjacent hydraulics laboratory. In this building is kept the equipment of the University fire department, including an electric automatic hose and chemical wagon.

BUILDINGS IN CHICAGO

The College of Medicine Building, in which are housed all the departments except that of anatomy, is a brick and stone structure two hundred feet long by one hundred and ten feet deep and five stories high, fronting on four streets. The building contains three lecture rooms with a seating capacity of two hundred each; a clinical amphitheater with a seating capacity of over three hundred; an assembly hall with a seating capacity of seven hundred; besides recitation rooms. It also contains laboratories for physiology, chemistry, materia medica, therapeutics, and microscopical and chemical diagnosis, each accommodating from fifty to one hundred students at a time.

A three-story annex to the main building contains the laboratories used by the departments of pathology, bacteriology, and chemistry. All of these laboratories have outside light and are furnished with work tables, desks, lockers, and the necessary apparatus. There is a supply of microscopes, lenses, and oil immersions, and a projection apparatus for the illustration of lectures by means of stereopticon views.

The College of Dentistry is housed in a six-story building containing three amphitheatres, recitation rooms and lecture rooms, laboratories, dissecting rooms, a clinical operating room, and an infirmary. A parlor is provided for the use of the women students. This building adjoins that of the College of Medicine.

The School of Pharmacy leases a substantial brick structure five stories in height. It has a frontage of fifty feet on Michigan avenue and one hundred and seventy feet on Twelfth street. The School has the exclusive use of the four upper floors.

LABORATORIES

Twenty-six departments of the University are equipped with laboratories. The following list shows the buildings in which these are located:

General Science Laboratories

Botany—Natural History Hall
Ceramics—Ceramics Laboratory
Chemistry—Chemical Laboratory
Entomology—Natural History Hall
Geology—Natural History Hall
Physics—Laboratory of Physics
Physiology—Natural History Hall
Psychology—University Hall
Zoology—Natural History Hall

Engineering Laboratories

Cement—Mechanical Engineering Laboratory
Electrical Engineering—Electrical Engineering Laboratory
Founding—Wood Shop
Forging—Metal Shops

Hydraulics—Laboratory of Applied Mechanics
 Locomotive—Locomotive Laboratory
 Machine Construction—Metal Shops
 Materials Testing—Laboratory of Applied Mechanics
 Mechanical Engineering—Mechanical Engineering Laboratory
 Mining—Mining Engineering Laboratory
 Mine Dust and Gas—Natural History Hall
 Roads—Mechanical Engineering Laboratory
 Woodworking—Wood Shop

Special Research Laboratories

<i>Agricultural Experiment Station—</i>	Agricultural Building
Bacteriological laboratory	
Chemical laboratory	
Physical laboratory	
<i>Geological department—</i>	Natural History Hall
Laboratory of economic geology	
<i>State Entomologist's Office—</i>	Natural History Hall
<i>State Laboratory of Natural History—</i>	Natural History Hall
<i>State Water Survey—</i>	Chemical Laboratory
Laboratory for sanitary water analysis	

MUSEUMS AND COLLECTIONS

College of Liberal Arts and Sciences

Liberal Arts Group

Art.—A collection of casts, photographs, and engravings presented to the University in 1876 by citizens of the community has, for want of a suitable gallery, been placed in different buildings on the campus. Eight large statues are in the auditorium foyer. Numerous pieces of this collection are now in the studios of the department of art and design in University Hall, and others are used to decorate the corridors and class rooms of University Hall, Natural History Hall, and the Library. A collection of eighty-one German and Japanese prints purchased by the department of art and design from the St. Louis Exposition in 1905 is displayed in the rooms of the department of art and design.

Other collections of value to art students, consisting of a number of casts of Moorish, Spanish, and German ornament and miscellaneous casts, models, prints, and drawings, are placed in the studios and corridors of the department of art and design.

Classical Archeology and Art.—This museum is located in Rooms 402, 404, and 406 Lincoln Hall, and contains casts of important works of Greek and Roman sculpture; miscellaneous originals and models of Babylonian, Greek, and Roman antiquities; and many objects from the finds of the Egypt Exploration Fund, received through the generosity of Mr. W. G. Hibbard, Jr., of Chicago; about 30 Greek papyri; over 1,500 Babylonian tablets; and more than 1,700 mounted photographs of historic sites and archeological remains in Greece, Italy, and other parts of the ancient world. Over 1,600 slides belonging to the department of the classics are also available for illustrative purposes. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons.

Commerce.—For its courses in industrial economics and commerce the University has a working collection of the materials of commerce; lanterns and several hundred slides; political and industrial maps; and diagrams and stereoscopic views illustrating various phases of commerce and industry. Most of the articles constituting the commercial museum are the gifts of the Philadelphia Commercial Museum and of private manufacturing and mercantile establishments.

Education.—In Room 437 Lincoln Hall is a collection of illustrative material from the manual training departments of various schools; photographs of school buildings; drawings and constructive work by pupils in the public schools; and the nucleus of a representative collection of apparatus for the school laboratory. It is planned to gather here particularly materials that are illustrative of the development of public schools in Illinois.

European Culture.—The Museum of European Culture is in the north wing of Lincoln Hall. The collection consists of casts of Romanesque, Gothic, and Renaissance sculpture, color reproductions of masterpieces of painting, original leaves and facsimiles from medieval manuscripts, early maps of the world, peasant costumes shown in full size and in small costume manikins, models of ships, a model of the Fortune Theater, replicas of seals, reproductions of prehistoric antiquities, of early ivory carving, of runic inscriptions, of early musical instruments, etc. The museum is open on Sunday, Monday, Wednesday, and Friday afternoons.

Science Group

Botany.—The herbarium contains about 65,000 sheets of mounted specimens; and several collections recently acquired but not yet incorporated will increase this number. It is already fairly representative of the higher plants and fungi of Champaign County and of the State, and forms a useful collection for the general flora of the United States. Through the recent acquisition of the herbaria of the late Dr. Frederick Brendel of Peoria and the late Dr. Jacob Schneck of Mount Carmel and the gift of the large personal herbarium of Mrs. Agnes Chase, its value for students of the Illinois flora has been largely increased. Because of the interest of Professor Burrill and his special students, Clinton, Earle, Seymour, and others, in the study of parasitic fungi, the part of the herbarium devoted to the representation of plants of this group is rich in material records of investigation, and the published "exsiccatae" in this group are well represented. The recent gift of her personal set of the Phycotheca Boreali-Americana by Mrs. Mary S. Snyder has greatly increased the reference value of the herbarium for students of algae, of which it represents over 2,000 carefully named species.

Entomology.—The entomology collections of the University include an elementary reference series of 6,400 specimens, representing 1,600 common species; and the Bolter collection, donated to the University by the executors of the estate of the late Andreas Bolter, of Chicago, which now contains about 120,000 specimens representing over 16,000 species. The department has access, also, to the insect collections of the State Laboratory of Natural History, which contain 315,000 pinned insects and 23,000 vials and bottles of specimens in alcohol, mainly from Illinois.

Geology.—The geology collections are to be found in the Natural History Building. *Lithology* is represented by type collections of rocks aggregating

9,000 specimens; 1,000 thin sections of rocks and minerals; ornamental building stones; a collection of rock samples to illustrate Illinois geology; a collection of Illinois soils (104), and one of polished marbles, granites, and other ornamental stones. The *mineralogy collection* contains over 12,000 specimens; 575 crystal models; and a collection of gems and precious stones. The *paleontology collection* (49,000 specimens) contains representative fossils from the entire geologic series, but is especially rich in paleozoic forms. It embraces the private collections of A. H. Worthen (including 742 type specimens); Tyler McWhorter; Hertzner; the greater part of the collections made by the Geological Survey of the state under Worthen; detailed stratigraphic collections from various geological formations in the Mississippi valley; 200 thin sections of corals and bryozoa; the Ward collection of casts. In September, 1913, a collection of marine and fresh water shells that had belonged to the late A. H. Worthen was presented to the Museum by Mrs. Thomas A. Worthen. This collection includes about 3,000 specimens.

The Museum of Natural History includes the zoology collections which have been specially selected and prepared to illustrate the courses of study in zoology and to present a synoptical view of the zoology of the State. Most of them are placed in the new museum room in the Natural History Building, and in adjacent corridors. The mounted mammals include a collection of the ruminants of the United States and representatives of the other orders of Mammalia except the Sirenia. The same orders are also represented by mounted skeletons.

The collection of mounted birds includes representatives of all the orders and families of North America, together with a number of characteristic tropical, Bornean, and New Zealand forms. The collection is practically complete for Illinois species. There is also a collection of the nests and eggs of Illinois birds.

The Barnum collection of birds' eggs represents about 300 species and there is a collection of nests and eggs of Illinois birds.

The cold-blooded vertebrates are represented by a series of mounted skins of larger species, both terrestrial and marine; mounted skeletons of typical representatives of the principal groups; alcoholic specimens; and casts. The alcoholics include series of the reptiles, amphibians, and fishes, the latter comprising about 300 species. The casts represent about seventy-five species, nearly all fishes.

The Mollusca are illustrated by alcoholic specimens of all classes and orders, and dissections showing the internal anatomy of typical forms. There are several thousand shells, belonging to more than 2,000 species. The collection of the Illinois aquatic species is nearly complete.

The lower invertebrates are represented by several hundred dried specimens and alcoholics, and by a series of Blaschka glass models.

The embryology of vertebrates and invertebrates is illustrated by several sets of Ziegler wax models and series of sections and other preparations.

In addition to the foregoing, the collections of the State Laboratory of Natural History are available for illustrative purposes, as well as for original investigation by advanced students.

College of Engineering

Architecture.—The collections of the department of architecture include plaster casts of architectural detail and ornament; 9,400 lantern slides of architectural subjects and 900 slides of painting and sculpture; 20,000 classified plates,

photographs, and 2,400 stereoscopic views; a working library of about 1,800 volumes on architecture and the allied arts; a collection of 300 examples of American woods, shown in three sections each; and collections of architectural drawings and of specimens of building materials, fittings, and appliances.

Civil Engineering.—The department of civil engineering has samples of iron, steel, wood, brick, and stone; materials for roads and pavements; models of arches and trusses. The department also possesses a collection of photographs and blue-print working drawings of bridges, metal skeleton buildings, masonry structures, standard railroad construction, etc.

Electrical Engineering.—This department has a collection of samples illustrating standard practise in the industrial applications of electricity. There is also a growing collection of lantern slides, photographs, blue-prints, drawings, pamphlets, and other engineering data.

Mechanical Engineering.—This department includes in its equipment part of a set of Reuleaux models; models of valve gears; sections of steam pumps; injectors; valves, skeleton steam and water gauges; standard packings; steam-pipe coverings; and drop forgings. There are also examples of castings, perforated metal, defective boiler plates, and set of drills, with samples of oil, iron, and steel. A number of working drawings from leading firms form a valuable addition to these collections.

Mining Engineering.—This department has a complete exhibit of sized coal as prepared by typical Illinois washeries, the raw materials and the finished products illustrating the briquetting of coal, models of a metalliferous mine and of timber and steel mine supports, a complete exhibit of explosive and blasting materials and appliances, breathing apparatus, and all of the appliances necessary for mine rescue and first aid demonstration, a collection of safety-lamps and other mine-lighting and signaling devices, and working drawings and photographs of mine machinery.

Municipal and Sanitary Engineering.—The collection of the department of municipal and sanitary engineering includes maps of cities and towns, working plans of waterworks, sewerage systems, water purification and sewage disposal plants, photographs of a variety of municipal engineering works, and models of filters, flushing devices, valves, pipe, tile, and well strainers.

Railway Engineering.—The department of railway engineering has an unusually complete exhibit of photographs illustrating the development in transportation; an exhibit showing the progress in the design and manufacture of rails; models of locomotive valve gears; a full-sized model of the front end of a Richmond compound locomotive; and sets of working drawings of locomotives, cars, and other railway equipment.

Theoretical and Applied Mechanics.—The department of theoretical and applied mechanics has a collection of materials of construction showing failures by tension, compression, twisting, shearing, and bending. There is a good collection of lantern slides showing the manufacture, treatment, and tests of engineering materials. There are also models showing sections of water meter, gate valve, pressure reducing valve, and turbine.

College of Agriculture

The various agricultural departments maintain collections illustrative of their work; prominent among which are those showing typical specimens of

standard varieties of corn; wax models of fruit and vegetables; a horticulture herbarium; specimens of breeds of live stock; a collection of farm machinery; and exhibits of negatives and samples showing the progress of certain investigations, especially with fruit, crops, and soils.

See further the description of the facilities for instruction and methods of work of the departments of agronomy, animal husbandry, dairy husbandry, and horticulture, under the College of Agriculture, in Part II.

Library School

The School has made a collection of books and pamphlets on library science; of library reports and catalogs; of mounted samples showing methods of administration in all departments; of labor-saving devices and fittings; and of photographs and lantern slides illustrating the history of books and libraries.

LIBRARIES

(For the Library Staff see page 30.)

The University Library includes all the books belonging to the colleges and schools of the University which are situated in Urbana and also the libraries of the College of Medicine and the School of Pharmacy in Chicago.

On October 1, 1914, the contents of the several libraries were as follows:

	Volumes	Pamphlets	Periodicals
General library, including departmental collections	282,562	30,650	3,025
State Laboratory of Natural History library	8,100	30,900	300
State Geological Survey library.....	1,500	4,000	.....
College of Medicine library.....	14,010	3,000	210
Pharmacy library	2,100	500	33

The Library is housed, for the most part, in the Library building, and is for the use of the whole University. The officers of instruction and administration of the University, the graduate students, and the members of the senior class have direct access to the shelves; other students may have this privilege upon the recommendation of their instructors. All students have the direct use of 10,700 volumes in the reading rooms, and in addition graduate students have the use of the seminar libraries.

As a part of the Library are included several special collections: *The University of Illinois collection*, including printed material illustrating the history of the University: about 300 volumes. *College Publications collection*, comprising the catalogs, announcements, reports, studies, etc., of other educational institutions: about 5,000 volumes. *Thesis collection*, a complete file of the original copies of the theses presented for graduation from the University of Illinois; they are bound and filed by years: 2,000 volumes. *The Collection of School Reports*, a carefully catalogued collection of school reports, courses of study, and other documents published by public school authorities throughout the United States. *The Dziatzko collection of Library Economy*, bought in 1905, the entire library of Karl Dziatzko, librarian of Göttingen University: 300 volumes, 250 pamphlets. *The Dittenberger Collection of the Classics*, bought in 1907, the entire library of Wilhelm Dittenberger, professor of Classical Philology in the University of Halle: 5,600 items. *The Heyne collection*, purchased

by the University in 1909, the philological library of Professor Moritz Heyne, of the University of Göttingen: about 5,000 items, principally on German philology and literature. *The Karsten collection*, principally on French and German philology and literature, the library of the late Professor Gustaf E. Karsten, presented by Mrs. Eleanor G. Karsten. *The Gröber collection*, purchased in 1912, the entire library of the late Professor Gustav Gröber, of Strasburg: 6,300 titles, principally on the Romance languages. *The Vahlen collection*, purchased in 1913, the entire classical library of the late Professor Johannes Vahlen, of Berlin: 10,000 volumes. *The Aron collection*, purchased in 1913, the pedagogical library of the late Dr. R. Aron, of Berlin: 20,000 volumes.

A number of seminar and departmental collections are maintained in various buildings on the campus, including the six seminars in Lincoln Hall; these libraries do not necessarily contain all the books in their respective subjects, but are primarily reference collections for the use of graduate students and advanced undergraduate students in the departments using the respective buildings. The principal departmental libraries and reading rooms are the following:

<i>Name of Library</i>	<i>Location</i>	<i>No. of Volumes</i>
Philosophy, Psychology, and Education	Lincoln Hall	10,500
Classics	Lincoln Hall	13,800
Modern languages	Lincoln Hall	19,400
English	Lincoln Hall	15,500
History and Political Science	Lincoln Hall	21,800
Economics and Sociology	Lincoln Hall	16,650
Natural History	Natural History Building	*19,000
Law	Law Building	18,500
Commerce Reading Room	Commerce Building	1,000
Architecture	Engineering Building	3,200
Agriculture Reading Room	Agricultural Building	4,600
Chemistry	Chemistry Building	5,000
Physics	Physics Building	1,000
Mathematics	Natural History Building	3,300
Railway Engineering and Mining	Transportation Building	1,000

Mason Library of Western History. The library of western history collected by Edward G. Mason, Esq., long president of the Chicago Historical Society, is in the Public Library of the city of Champaign, and is accessible to students in the University.

Library Regulations

The General Library is primarily for free reference use; any student or citizen of the State may use the books in the general reading rooms. The privilege of drawing books for use outside the building is accorded to all officers of instruction and government, to all registered students, and to other accredited persons. Books not reserved for classes may be borrowed for home use for two weeks and may be renewed for two weeks more if not specially restricted or called for. All books are subject to recall at any time when needed for university work.

General reference books, books reserved for classes, all general periodicals, and certain other groups of books are to be consulted in the reading rooms only. They may not be loaned from the Library except when the reading

*Including the State Laboratory collection.

rooms are closed. They must then be returned by the time the Library next opens.

Books from the stack which are not returned on time are subject to a fine of two cents a day. Books from the reference, reserve, and periodical shelves, as well as some special collections, are subject to a fine of twenty-five cents for the first hour and five cents for each additional hour if kept overtime. Books recalled for university work must be returned at once upon receipt of the notice. If not returned within two days after notice is mailed a fine of twenty-five cents a day is charged. All books lost or damaged must be replaced or paid for. Books not at the time needed in Urbana, or not subject to special restrictions, may be loaned for a limited period to other libraries in the State, for the use of serious students.

Hours of Opening. The General Library is open week days during the general sessions of the University, from 7:45 a. m. to 10 p. m., and on Sundays from 2 p. m. to 6 p. m. During the Summer Session, the Library is open from 7:45 a. m. to 10 p. m. on week days, but is not open on Sundays. During the summer vacation the Library is open from 9 a. m. to 12 m. Permits may be given for use at other hours. The Library is regularly closed on New Year's, Independence, Labor, Thanksgiving, and Christmas days. The hours of opening of the departmental libraries differ somewhat from those given above.

ADMINISTRATION

GOVERNMENT

The government of the University is vested by law primarily in a Board of Trustees, consisting of twelve members. The Governor of the State, the Superintendent of Public Instruction, and the President of the State Board of Agriculture are members *ex officio*. The other nine members are elected by the people of the State for terms of six years; the terms of three members expire every second year.

The administration of the University is vested by the Board of Trustees in the President of the University, the Senate, the Council of Administration, the Faculties of the several colleges, and the Deans of the colleges and Directors of the schools.

The President is the administrative head of the University.

The Senate is composed of the full professors and those other members of the faculty who are in charge of separate departments of the various colleges and schools. It is charged with the direction of the general educational policy of the University.

The Council of Administration is composed of the President, the Dean of the Graduate School, the Deans of Men and Women, and the Deans of the several colleges. It constitutes an advisory board to the President, and has exclusive jurisdiction over all matters of discipline. The Council does not determine educational policy; but when any matter arises which has not been provided for by common usage or by rule of the Senate and cannot be conveniently laid over until the next meeting of the Senate, the Council may act upon the same according to its discretion.

The Faculties of the colleges and schools of the University, composed of the members of the corps of instruction of these colleges and schools, have jurisdiction, subject to higher University authority, over all matters which pertain exclusively to these organizations.

The Dean of the Graduate School, the Deans of the several colleges, and the Directors of the schools are responsible for the carrying out of all University regulations within their respective departments.

DEPARTMENTS AND COURSES

For the purpose of administration the University is divided into several colleges and schools. These are not educationally separate, but are interdependent and form a single unit.

The colleges and schools are as follows:

- I. The College of Liberal Arts and Sciences
- II. The College of Engineering
- III. The College of Agriculture
- IV. The Graduate School
- V. The Library School
- VI. The School of Music

- VII. The School of Education
- VIII. The School of Railway Engineering and Administration
- IX. The College of Law
- X. The College of Medicine
- XI. The College of Dentistry
- XII. The School of Pharmacy

The College of Liberal Arts and Sciences offers courses in—

- 1. Philosophy and arts, including—
 - (a) The ancient classical languages
 - (b) The Romance languages
 - (c) The Germanic languages
 - (d) The English language and literature, including rhetoric
 - (e) Mathematics
 - (f) The political and social sciences—
 - History
 - Economics
 - Political science
 - Sociology
 - (g) Philosophical subjects—
 - Philosophy
 - Psychology
 - Education
 - (h) Art and design
- 2. General Science, affording opportunity to specialize in:
 - (a) Astronomy
 - (b) Geology, including mineralogy
 - (c) Physics
 - (d) Chemistry
 - (e) Ceramics*
 - (f) Botany, including bacteriology
 - (g) Zoology
 - (h) Entomology
 - (i) Physiology

By the grouping of certain subjects students in this College are also offered opportunities for specific vocational and professional training as follows:

- 1. Business administration—
 - (a) General business
 - (b) Secretarial service
 - (c) Banking
 - (d) Accountancy
 - (e) Railway administration—
 - Railway traffic and accountancy
 - Railway transportation
 - (f) Insurance
 - (g) Commercial teaching
- 2. Teaching and school administration
- 3. Journalism

*The courses in ceramics and ceramic engineering will be transferred to the College of Engineering on July 1, 1915.

4. Chemistry
5. Chemical engineering
6. Ceramics*
7. Ceramic engineering*
8. Household science and household administration
9. Library administration
10. Law (combined course)
11. Medicine (combined course)
12. Engineering (combined course)

The College of Engineering offers courses in—

1. Architecture
2. Architectural engineering
3. Civil engineering
4. Electrical engineering
5. Mechanical engineering
6. Mining engineering
7. Municipal and sanitary engineering
8. Railway civil engineering
9. Railway electrical engineering
10. Railway mechanical engineering

The College of Agriculture offers courses in—

1. Agronomy
2. Horticulture, floriculture, and landscape gardening
3. Animal husbandry
4. Dairy husbandry
5. Veterinary science
6. Household science
7. Agricultural extension
8. Teachers' course

Military science and *physical training* are provided in all the undergraduate colleges in Urbana.

The Graduate School offers courses in—

Philology, including the classical languages, Romance languages, Germanic languages, and English

Mathematics

Political and social sciences, including history, economics, sociology, and political science

Philosophy, including psychology and education

Physical sciences, including physics, chemistry, astronomy, and geology

Biology, including botany, zoology, entomology, and physiology

Engineering, including architecture, architectural engineering, civil engineering, electrical engineering, mechanical engineering, mechanics, mining engineering, municipal and sanitary engineering, and railway engineering

Agriculture, including agronomy, animal husbandry, dairy husbandry, floriculture, horticulture, and thremmatology

Household science

*The courses in ceramics and ceramic engineering will be transferred to the College of Engineering on July 1, 1915.

The Library School offers a professional course of two years in preparation for the librarianship, leading to the degree of Bachelor of Library Science.

The School of Music offers courses in vocal and instrumental music, leading to the degree of Bachelor of Music; and provides training in public school methods in music.

The School of Education enrolls, at the beginning of the junior year, students already registered in other colleges of the University who are preparing to teach, and directs their work for the remaining two years.

The School of Railway Engineering and Administration offers courses of study leading to the degree of Bachelor of Science in railway civil, railway electrical, and railway mechanical engineering; and also courses in railway transportation and in railway traffic and accountancy leading to the degree of Bachelor of Arts.

The Courses in Business Administration virtually constitute a school of commerce. They include courses in social and industrial economics, accountancy, banking, and railway administration, leading to the degree of Bachelor of Arts.

The College of Law offers a course of three years leading to the degree of Bachelor of Laws. One year of college work in an institution of approved standing is required for admission to the College of Law.

Students holding the bachelor's degree in arts or science may become candidates in this College for the degree of Doctor of Law (J.D.).

The College of Medicine offers a course of four years leading to the degree of Doctor of Medicine; and, in conjunction with the College of Liberal Arts and Sciences, a course of six years, leading to the two degrees of Bachelor of Arts and Doctor of Medicine.

The College of Dentistry offers a three-year course leading to the degree of Doctor of Dental Surgery.

The School of Pharmacy offers courses in the branches necessary to a scientific and practical knowledge of pharmacy, including pharmacy, chemistry, materia medica, botany, physics, and physiology. The courses lead to the degrees of Graduate in Pharmacy and Pharmaceutical Chemist.

The Summer Session, of eight weeks, offered in 1914 courses in accountancy, agricultural education, art and design, botany, chemistry, drawing (general engineering), economics, education, English, entomology, French, German, history, household science, Latin, library science, manual training, mathematics, mechanical engineering, mechanics (theoretical and applied), microscopical technics, music, physical training for men and for women, physics, political science, psychology, rhetoric, sociology, and zoology.

All the courses given in the Summer Session are of collegiate grade and may be counted toward the bachelor's degree. Certain advanced courses may be counted toward the master's degree.

ADMISSION

GENERAL STATEMENT

An applicant for admission to any of the colleges or schools of the University must be at least sixteen years of age. Candidates for admission to the College of Dentistry (Chicago) must be eighteen and candidates for admission to the School of Pharmacy (Chicago) must be seventeen years of age.

Women are admitted to all departments under the same conditions and on the same terms as men.

Students may be admitted at any time, but should enter if possible at the beginning of the fall semester (in 1915, September 20), or at the beginning of the spring semester (in 1916, February 7). Students can seldom enter the College of Engineering to advantage except at the opening of the school year in September.

The entrance requirements for the undergraduate departments, including the colleges of Liberal Arts and Sciences, Engineering, and Agriculture, and the School of Music, amounting in each case to 15 units of high-school work, are stated in detail immediately below (page 70).

The College of Law requires, in addition to 15 units of high-school credit, two years (60 semester hours) of college work in arts, letters, and science in an institution having standards equal to those of the University of Illinois. (See page 213.)

The Library School requires a bachelor's degree in arts, letters, or science from an institution having standards equal to those of the University of Illinois. (See page 195.)

The College of Medicine (Chicago) requires, in addition to 15 units of high-school credit, two years (60 semester hours) of college work in an institution having standards equal to those of the University of Illinois. (See page 220.)

The College of Dentistry (Chicago) requires an applicant for admission to present a certificate of graduation from an accredited high school or the equivalent; which equivalent is interpreted to mean 15 units of preparatory work in an accredited high school or academy or a state normal school. (See page 247.)

The School of Pharmacy (Chicago), for the year 1915-16, requires for admission to its shorter course, leading to the degree of Graduate in Pharmacy, two years of high-school work or the full educational equivalent; and for admission to its longer course, leading to the degree of Pharmaceutical Chemist, graduation from an accredited high school or the equivalent. For the year 1916-17 and thereafter, graduation from an accredited high school with 15 acceptable units will be required for admission to both courses in this school. (See page 253.)

ENTRANCE REQUIREMENTS OF THE UNDERGRADUATE COLLEGES

Under an action taken by the Board of Trustees of the University of Illinois on June 9, 1914, the following new entrance requirements for the courses leading to the degrees of Bachelor of Arts, Bachelor of Science, and

Bachelor of Music—or, in other words, for the undergraduate departments at Urbana, including the College of Liberal Arts and Sciences, the College of Engineering, the College of Agriculture, and the School of Music—go into effect September 1, 1915:

HIGH SCHOOL GRADUATION

A candidate for admission by *certificate* must be a *graduate* of an accredited high school or other accredited school.

An applicant who has not been graduated from an accredited school must pass entrance examinations in the following subjects, amounting to 7 units*:

English composition.....	1 unit
English literature.....	2 units
Algebra (to quadratics).....	1 unit
Additional subjects to be designated by the University authorities.....	3 units

Total 7 units

The remaining 8 units necessary to make up the 15 units required for admission may also be made in entrance examinations or may be offered by certificate from any accredited school.

NUMBER OF UNITS REQUIRED

Fifteen units of high-school or other secondary-school work, in acceptable subjects (see Lists A, B, and C below), must be offered by every candidate.

For 1915-16 students may be admitted with conditions of not more than *one unit*; that is, with a minimum of 14 units. All such conditions must be made up before the student can be permitted to register for his second year in the University.

A conditioned student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00 a semester.

No student having entrance conditions may register for a second year in the University, except on the recommendation of the faculty of the college or school in which he is enrolled, approved by the Council of Administration. Only in rare and especially meritorious cases will such permission to continue as a conditioned student be granted.

After September 1, 1916, no conditions will be permitted. In other words, every student must offer at the time of admission 15 units in acceptable subjects, including the 6 units specifically prescribed for all the undergraduate colleges (see List A below). It is provided, however, that a student who offers 15 acceptable units including the 6 units of List A, but is deficient not to exceed 2 units in subjects prescribed only for the college or curriculum which he wishes to enter, may be admitted in that college or curriculum to courses for which he is fully prepared, subject to the requirement that the deficiencies in question shall be removed before he may register for a second year's work.

PRESCRIBED SUBJECTS

Summary

The 15 units offered for admission must include:

I. Certain subjects <i>prescribed alike for all courses</i> (see List A below).....	6 units
II. Certain subjects <i>prescribed in addition for the individual course</i> which the student wishes to enter.....	1 to 4 units
III. Enough <i>electives in academic subjects</i> (see List B below) to make, with the subjects prescribed for all courses (List A) and those prescribed for the individual course of the student's choice, 12 units in academic subjects	5 to 2 units
IV. <i>Three additional units</i> , which may be chosen either from the list of Academic Electives (List B) or from the list of Additional Electives (List C).....	3 units
Total	15 units

*A unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practise.

Detailed Statement

I. Units Prescribed for All Courses

Of the 15 units required, the following 6 units, constituting List A, are *prescribed* for admission to the freshman class in *all* the undergraduate courses of the University, and no substitutes are accepted:

LIST A

English (composition and literature).....	3 units
Algebra	1 unit
Plane geometry.....	1 unit
Physics, or chemistry, or botany, or zoology, or physiology, with laboratory work	1 unit
Total	6 units

II. Additional Prescriptions for Individual Courses

Of the 9 units that remain, certain others are *prescribed* for admission to *individual courses*, and in each case no substitutes are accepted for the course in question. These additional prescriptions are as follows:

For the College of Liberal Arts and Sciences, for the courses leading to the Degree of Bachelor of Arts (including the <i>General Course in Literature and Arts</i> , the courses in <i>Business</i> ,* in <i>Journalism</i> , and in <i>Household Science</i> , and the <i>Course Preparatory to Medicine</i>): Foreign language (both units in the same language).....	2 units
For the College of Liberal Arts and Sciences for the courses in <i>General Science</i> and in <i>Chemistry</i> — Science	1 unit
For College of Liberal Arts and Sciences for the course in <i>Chemical Engineering</i> Science	1 unit
German	2 units
For the College of Engineering Advanced algebra (through quadratics).....	$\frac{1}{2}$ unit
Solid and spherical geometry.....	$\frac{1}{2}$ unit
For the College of Agriculture Science	1 unit
For the School of Music Foreign language (both units in the same language).....	2 units
Music	2 units

III. Academic Electives

Enough electives must be chosen from List B below to make, with the subjects prescribed for all courses (List A) and those prescribed for the individual course of the student's choice, 12 units in academic subjects.

It will be seen that the number of such electives from List B required for the several courses is as follows:

For the College of Liberal Arts and Sciences for the courses leading to the degree of Bachelor of Arts (including the <i>General Course in Literature and Arts</i> , the courses in <i>Business</i> , in <i>Journalism</i> , and in <i>Household Science</i> , and the <i>Course Preparatory to Medicine</i>).....	4 units
For the College of Liberal Arts and Sciences for the courses in <i>General Science</i> and in <i>Chemistry</i>	5 units
For the College of Liberal Arts and Sciences for the course in <i>Chemical Engineering</i>	8 units
For the College of Engineering.....	5 units
For the College of Agriculture.....	5 units
For the School of Music.....	2 units

LIST B

		Units
Latin	36 to 144 weeks	1-4
Greek	36 to 108 weeks	1-3
French	36 to 144 weeks	1-4
German	36 to 144 weeks	1-4
Spanish	36 to 72 weeks	1-2

*On June 9, 1914, the Board of Trustees of the University of Illinois authorized the erection of the courses in Business Administration, now given in the College of Liberal Arts and Sciences, into a separate College of Commerce. The entrance requirements for this new college will be announced at a later date.

English (4th unit).....	36 weeks	1
Advanced algebra.....	18 weeks	$\frac{1}{2}$
Solid geometry.....	18 weeks	$\frac{1}{2}$
Trigonometry.....	18 weeks	$\frac{1}{2}$
History.....	36 to 108 weeks	1-3
Civics.....	18 or 36 weeks	$\frac{1}{2}$ -1
Economics and economic history.....	18 or 36 weeks	$\frac{1}{2}$ -1
Commercial geography.....	18 to 36 weeks	$\frac{1}{2}$ -1
Astronomy.....	18 weeks	$\frac{1}{2}$
Geology.....	18 or 36 weeks	$\frac{1}{2}$ -1
Physiography.....	18 or 36 weeks	$\frac{1}{2}$ -1
Physiology.....	18 or 36 weeks	$\frac{1}{2}$ -1
Zoology.....	18 or 36 weeks	$\frac{1}{2}$ -1
Botany.....	18 or 36 weeks	$\frac{1}{2}$ -1
Physics.....	36 weeks	1
Chemistry.....	36 to 72 weeks	1-2

IV. Additional Electives

The remaining 3 units may be chosen either from List B above or from List C:

LIST C

		Units
Agriculture.....	36 to 72 weeks	1-2
Bookkeeping.....	36 weeks	1
Business law.....	18 weeks	$\frac{1}{2}$
Domestic science.....	36 weeks	1
Drawing.....	18 or 36 weeks	$\frac{1}{2}$ -1
Manual training? ¹	36 to 72 weeks	1-2
Music.....	36 to 72 weeks	1-2

SUMMARY BY COURSES

The requirements stated above may be summarized by colleges and courses as follows:

For the *College of Liberal Arts and Sciences* for the courses leading to the degree of Bachelor of Arts (including the *General Course in Literature and Arts*, the courses in *Business*, in *Journalism*, and in *Household Science*, and the *Course Preparatory to Medicine*):

I. List A (prescribed for all courses).....	6 units
II. Special prescription for these courses—	
Foreign language (both units in the same language).....	2 units
III. Electives from List B.....	4 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units

For the *College of Liberal Arts and Sciences* for the courses in *General Science* and in *Chemistry*:

I. List A (prescribed for all courses).....	6 units
II. Special prescription for these courses—	
Science.....	1 unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units

For the *College of Liberal Arts and Sciences* for the course in *Chemical Engineering*:

I. List A (prescribed for all courses).....	6 units
II. Special prescriptions for this course—	
Science.....	1 unit
German.....	2 units
III. Electives from List B.....	3 units
IV. Electives from either List B or List C.....	3 units
Total.....	15 units

¹The subjects named in List C must be taught in accordance with specifications, which are set forth in the High School Manual. Further information may be had on application to the High-School Visitor.

²In giving credits for manual training the University specifies that the work is to be done by competent teachers, as determined by inspection, and that credit shall not exceed one unit for 360 forty-minute periods of work, including the necessary drawing and shop work.

For the College of Engineering:

I. List A (prescribed for all courses).....	6 units
II. Special prescriptions for this College—	
Algebra (through quadratics).....	$\frac{1}{2}$ unit
Solid and spherical geometry.....	$\frac{1}{2}$ unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units
Total	15 units

For the College of Agriculture:

I. List A (prescribed for all courses).....	6 units
II. Special prescription for this College—	
Science	1 unit
III. Electives from List B.....	5 units
IV. Electives from either List B or List C.....	3 units
Total	15 units

For the School of Music:

I. List A (prescribed for all courses).....	6 units
II. Special prescription for this School—	
Foreign language (both units in the same language).....	2 units
Music	2 units
III. Electives from List B.....	2 units
IV. Electives from either List B or List C.....	3 units
Total	15 units

METHODS OF ADMISSION

The credits required for admission to the undergraduate departments, as detailed above, may be secured:

- (a) By examination.
- (b) By certificate from an accredited high school or other secondary school.
- (c) By transfer from another university or college of recognized standing.

(A) ADMISSION BY EXAMINATION**I. The University Entrance Examinations**

The University entrance examinations are given at the University in Urbana (in Room 228, Natural History Building) three times in each year: in September, immediately before the opening of the fall semester; in February, shortly before the opening of the spring semester; and in July, during the Summer Session.

These examinations cover all the subjects required or accepted for admission, as outlined in the "Description of Subjects Accepted for Admission" on pages 85 to 91.

For programs of these three sets of examinations for 1915-16, see pages 77 to 79.

II. The Examinations of the College Entrance Examination Board

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent. or higher, will be accepted for admission in any subject in the lists on pages 71 and 72 in the amounts there specified as being acceptable. These examinations will be held during the week of June 14-19, 1915.

All applications for examination must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-Station 84, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application.

Applications for examination at points in the United States east of the Mississippi River, and also at Minneapolis, St. Louis, and other points on the Mississippi River, must be received by the Secretary of the Board at least two weeks in advance of the examinations; that is, on or before Monday, May 31, 1915; applications for examination elsewhere in the United States or in Canada must be received at least three weeks in advance of the examinations; that is, on or before Monday, May 24, 1915, and applications for examination outside of the United States and Canada must be received at least five weeks in advance of the examinations; that is, on or before Monday, May 10, 1915.

Applications received later than the dates named will be accepted when it is possible to arrange for the admission of the candidate concerned, but only upon the payment of \$5.00 in addition to the usual fee.

The examination fee is \$5.00 for all candidates examined at points in the United States and Canada, and \$15.00 for all candidates examined outside of the United States and Canada. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board in June, 1915, will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.

III. The New York Regents' Examinations

Credits will be accepted, also, from the examinations conducted by the Regents of the University of the State of New York.

(B) ADMISSION BY CERTIFICATE FROM AN ACCREDITED PREPARATORY SCHOOL

Blank certificates for students wishing to enter the University *by certificate* from an accredited high school or academy may be had of the Registrar. They should be obtained early and should be filled out and sent in to the Registrar for approval as soon as possible after the close of the high-school year in June. Certificates received at the University after September 16 (in 1915) will be held until the arrival of the student unless such certificates are accompanied by an addressed envelope with a special delivery stamp.

Accredited Schools

The High-School Visitor of the University visits and inspects, on request, high schools and other preparatory schools throughout the State. On the basis of his reports, approved by the Committee on Accredited Schools and by the Council of Administration, the University accredits all work which is found to be sufficiently well done. For a list of Accredited Schools, correct to January 1, 1915, see page 79. Not all the schools named in this list, however, are accredited for the same amount of work nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein *for which the school is specifically accredited as shown in the certificate of its accredited relation issued to the school by the University.*

Entrance credits will also be accepted on certificate from the following sources:

1. From schools accredited by the North Central Association of Colleges and Secondary Schools.

2. From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.

3. From the state normal schools of Illinois and other state normal schools having equal requirements for graduation.

4. From schools approved by the New England College Entrance Certificate Board.

Foreign Students

Candidates for admission who come from foreign countries should bring complete official credentials. Certificates from oriental countries should be accompanied by certified translations. Upon arriving at the University foreign students should consult with the Adviser to Foreign Students, Room 214, Lincoln Hall.

Examination in Rhetoric I

Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in rhetoric (Rhetoric 2) may be excused from the first semester's work (Rhetoric 1). An examination to test such proficiency will be given at 7:00 p. m., on the first day of registration (in 1915, September 20). The results of this examination will be announced the following morning. Students who try this examination should defer their registration until they learn whether or not they have passed in the examination.

(C) ADMISSION BY TRANSFER OF ENTRANCE CREDITS FROM OTHER COLLEGES OR UNIVERSITIES

A person who has been admitted to another college or university of recognized standing will be admitted to this University upon presenting a certificate of honorable dismissal from the institution from which he comes and an official statement of the subjects upon which he was admitted to such institution, provided it appears that the subjects are those required here for admission by examination or real equivalents. No substitutes will be accepted for the subjects *prescribed* for all colleges or by individual colleges as indicated above (pages 70 to 73).

For admission to advanced standing by transfer of college credits see page 76 below.

Students intending to transfer to the University of Illinois should send an official statement of their college credits, accompanied by a summary of their preparatory work and by a letter of honorable dismissal, to the Registrar as early in the summer as possible.

ADMISSION AS SPECIAL STUDENTS

Persons over twenty-one years of age may be admitted as special students, provided they secure (1) the recommendation of the professor whose work they wish to take, and (2) the approval of the dean of the college concerned. They must give evidence that they possess the requisite information and ability to pursue profitably, as special students, their chosen subjects, and must meet the special requirements of the particular college in which they wish to enroll, as stated below.

A special student is not matriculated and must pay a tuition fee of \$7.50 a semester in addition to the regular incidental fee of \$12.00 a semester.

No one may enroll as a special student in any school or college of the University for more than two years, except by special permission, application for which must be made through the dean of the college.

A person registered as a special student in one college and desiring to take a course in another college of the University must obtain the approval of the dean of the latter college.

Special Requirements of the Colleges and Schools

The College of Liberal Arts and Sciences requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory work, and showing honorable dismissal from the school last attended. In order that action may be taken on such applications before registration they should be presented at least one week before the beginning of the semester.

The College of Engineering requires that applicants for admission as special students shall satisfy the entrance requirements in mathematics and English (one and one-half years of algebra, one year of plane geometry, one-half year of solid geometry, one year of English composition, and two years of English literature).

The College of Agriculture will receive non-matriculants twenty-one years old or over, provided that if deficient in English as measured by the requirements for matriculation they shall arrange to carry English as one subject until that deficiency is made good; and provided further, in the case of men, that they shall have had at least two years of experience in practical agriculture.

The Library School requires a written application, accompanied by official certificates, indicating the character and extent of the applicant's preparatory and college work and showing honorable dismissal from the institution last attended. In order that action may be taken on such applications before registration day, they should be presented not later than September 1.

It is the practise of this School to admit as special students only those mature persons who, tho unable to meet the formal requirements for entrance, are substantially prepared for thoro and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue the chosen subjects profitably, and some substitute for the regular requirements for entrance, such as the completion of part of a college course, approved library or teaching experience, foreign travel, etc. Preference will be given to those already engaged in library work, especially in Illinois libraries, who may desire more adequate training in particular subjects.

ADMISSION TO ADVANCED STANDING

After matriculation, an applicant may secure advanced standing either by examination or by transfer of credits.

1. *By examination*—Advanced standing is granted only by examination unless the applicant is from an approved school.

2. *By transfer of credits*—Credits may be accepted for advanced standing from another university or college of recognized standing, from a state normal school, or from an approved high school (not more than the equivalent of one unit unless the high school course exceeded four years in length). An applicant for advanced standing by transfer must present a certified record of work done in the institution from which he comes, accompanied (except in cases of

transfer from high schools) by a letter of honorable dismissal. Students intending to transfer to the University of Illinois should send their credentials to the Registrar as early in the summer as possible.

PROGRAMS OF UNIVERSITY ENTRANCE EXAMINATIONS

The University entrance examinations are given at the University in Urbana (in Room 228, Natural History Building) three times in each year: in September, immediately before the opening of the fall semester; in February, shortly before the opening of the spring semester; and in July and August, during the Summer Session.

The scope of these examinations is indicated in the "Description of Subjects Accepted for Admission," pages 85 to 91.

Admission to the examinations is by permit. Permits may be obtained of the Registrar, 321 Natural History Building.

Entrance Examinations, July, 1915

*History, 1, 2, or 3 units.....	Sat., July 10, 8:00 a.m.
Civics, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 10, 10:00 a.m.
†Physiology, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 17, 8:00 a.m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 17, 8:00 a.m.
†Physiography, $\frac{1}{2}$ unit or 1 unit.....	Sat., July 17, 10:00 a.m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Sat., July 24, 8:00 a.m.
Plane geometry, 1 unit.....	Sat., July 24, 8:00 a.m.
Solid and spherical geometry, $\frac{1}{2}$ unit.....	Sat., July 24, 10:00 a.m.
English literature, 2 units.....	Sat., July 31, 8:00 a.m.
English composition, 1 unit.....	Sat., July 31, 10:00 a.m.
Latin, 1, 2, 3, or 4 units.....	Sat., July 31, 8:00 a.m.
German, 1, 2, 3, or 4 units.....	Sat., July 31, 8:00 a.m.

The time for examinations in agriculture, astronomy, bookkeeping, botany‡, business law, chemistry†, domestic science, drawing (freehand or mechanical), economics and economic history, the fourth unit in English, French, geology, Greek, music, physics*, Spanish, trigonometry, and zoology*, will be arranged with candidates.

Fall Examinations, September, 1915

‡Chemistry, 1 unit or 2 units.....	Mon., Sept. 13, 1:00 p.m.
Geology, $\frac{1}{2}$ unit or 1 unit.....	Mon., Sept. 13, 1:00 p.m.
Astronomy, $\frac{1}{2}$ unit.....	Mon., Sept. 13, 3:30 p.m.
Trigonometry, $\frac{1}{2}$ unit.....	Mon., Sept. 13, 3:30 p.m.
*History, 1, 2, or 3 units.....	Tues., Sept. 14, 8:00 a.m.
English literature, 2 units.....	Tues., Sept. 14, 1:00 p.m.
English composition, 1 unit.....	Tues., Sept. 14, 3:30 p.m.
Latin, 1st unit, or 2nd unit, or both.....	Wed., Sept. 15, 8:00 a.m.
†Physics, 1 unit.....	Wed., Sept. 15, 8:00 a.m.
†Physical Geography, $\frac{1}{2}$ unit or 1 unit.....	Wed., Sept. 15, 10:30 a.m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Wed., Sept. 15, 1:00 p.m.
Civics, $\frac{1}{2}$ unit or 1 unit.....	Wed., Sept. 15, 3:30 p.m.

*Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; medieval and modern history, 1 unit; English history, $\frac{1}{2}$ unit or 1 unit; American history, $\frac{1}{2}$ unit or 1 unit.

†Notebook required for 1 unit; not required for $\frac{1}{2}$ unit.

‡Notebook required.

Economics and economic history, $\frac{1}{2}$ unit or 1 unit.....	Wed., Sept. 15,	3:30 p.m.
Geometry, plane, 1 unit.....	Thurs., Sept. 16,	8:00 a.m.
Geometry, solid and spherical, $\frac{1}{2}$ unit.....	Thurs., Sept. 16,	10:30 a.m.
*Physiology, $\frac{1}{2}$ unit or 1 unit.....	Thurs., Sept. 16,	10:30 a.m.
German, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 16,	1:00 p.m.
German, 3rd unit, or 4th unit, or both.....	Thurs., Sept. 16,	3:30 p.m.
French, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 16,	1:00 p.m.
French, 3rd unit, or 4th unit, or both.....	Thurs., Sept. 16,	3:30 p.m.
Spanish, 1st unit, or 2nd unit, or both.....	Thurs., Sept. 16,	1:00 p.m.
Business law, $\frac{1}{2}$ unit.....	Thurs., Sept. 16,	1:00 p.m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Thurs., Sept. 16,	3:30 p.m.
Latin, 3rd unit, or 4th unit, or both.....	Fri., Sept. 17,	8:00 a.m.
Bookkeeping, 1 unit.....	Fri., Sept. 17,	8:00 a.m.
†Botany, $\frac{1}{2}$ unit or 1 unit.....	Fri., Sept. 17,	8:00 a.m.
†Zoology, $\frac{1}{2}$ unit or 1 unit.....	Fri., Sept. 17,	10:30 a.m.

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, music, Greek, and the fourth unit in English, will be arranged with applicants.

Mid-Year Examinations, February, 1916

†Chemistry, 1 unit or 2 units.....	Wed., Feb. 2,	8:00 a.m.
Geology, $\frac{1}{2}$ unit or 1 unit.....	Wed., Feb. 2,	8:00 a.m.
Astronomy, $\frac{1}{2}$ unit.....	Wed., Feb. 2,	10:30 a.m.
Trigonometry, $\frac{1}{2}$ unit.....	Wed., Feb. 2,	10:30 a.m.
‡History, 1, 2, or 3 units.....	Wed., Feb. 2,	1:00 p.m.
English literature, 2 units.....	Thurs., Feb. 3,	8:00 a.m.
English composition, 1 unit.....	Thurs., Feb. 3,	10:30 a.m.
Latin, 1st unit, or 2nd unit, or both.....	Thurs., Feb. 3,	1:00 p.m.
†Physics, 1 unit.....	Thurs., Feb. 3,	1:00 p.m.
*Physical geography, $\frac{1}{2}$ unit or 1 unit.....	Thurs., Feb. 3,	3:30 p.m.
Algebra, 1 unit or $1\frac{1}{2}$ units.....	Fri., Feb. 4,	8:00 a.m.
Civics, $\frac{1}{2}$ unit or 1 unit.....	Fri., Feb. 4,	10:30 a.m.
Economics and economic history, $\frac{1}{2}$ unit or 1 unit.....	Fri., Feb. 4,	10:30 a.m.
Geometry, plane, 1 unit.....	Fri., Feb. 4,	1:00 p.m.
Geometry, solid and spherical, $\frac{1}{2}$ unit.....	Fri., Feb. 4,	3:30 p.m.
*Physiology, $\frac{1}{2}$ unit or 1 unit.....	Fri., Feb. 4,	3:30 p.m.
German, 1st unit, or 2nd unit, or both.....	Sat., Feb. 5,	8:00 a.m.
German, 3rd unit, or 4th unit, or both.....	Sat., Feb. 5,	10:30 a.m.
French, 1st unit, or 2nd unit, or both.....	Sat., Feb. 5,	8:00 a.m.
French, 3rd unit, or 4th unit, or both.....	Sat., Feb. 5,	10:30 a.m.
Spanish, 1st unit, or 2nd unit or both.....	Sat., Feb. 5,	8:00 a.m.
Business law, $\frac{1}{2}$ unit.....	Sat., Feb. 5,	8:00 a.m.
Commercial geography, $\frac{1}{2}$ unit or 1 unit.....	Sat., Feb. 5,	10:30 a.m.
Latin, 3rd unit, or 4th unit, or both.....	Sat., Feb. 5,	1:00 p.m.
Bookkeeping, 1 unit.....	Sat., Feb. 5,	1:00 p.m.

*Notebook required for 1 unit; not required for $\frac{1}{2}$ unit.

†Notebook required.

‡Three units may be offered in history, made up from the following: Ancient history to 800 A. D., 1 unit; mediæval and modern history, 1 unit; English history, $\frac{1}{2}$ unit or 1 unit; American history, $\frac{1}{2}$ unit or 1 unit.

*Botany, $\frac{1}{2}$ unit or 1 unit.....Sat., Feb. 5, 1:00 p.m.

*Zoology, $\frac{1}{2}$ unit or 1 unit.....Sat., Feb. 5, 3:30 p.m.

The time for examinations in agriculture, domestic science, manual training, freehand or mechanical drawing, music, Greek, and the fourth unit in English, will be arranged with applicants.

LIST OF ACCREDITED SCHOOLS

(Correct to January 1, 1915.)

The following high schools, having all the *prescribed* units, and enough others to make up the *required total* of 15 units, are in the list of fully accredited schools.

Not all of these schools, however, are accredited for the same amount of work, nor all for the same subjects. A student presenting a certificate from any one of these schools will be given entrance credit for all the subjects named therein *for which the said school is specifically accredited, as shown in the certificate of its accredited relation issued by the University.*

The High-School Visitor of the University inspects high schools not previously accredited upon request, if the request is accompanied by a report of the school which shows that it merits such inspection. The University accredits all work which is thus found to be sufficiently well done. For further particulars address THE HIGH-SCHOOL VISITOR, in care of the University of Illinois.

FULLY ACCREDITED SCHOOLS

School	Superintendent	Principal
ABINGDON	A. C. BUTLER	M. C. WILKINS
ALBION		
HIGH SCHOOL	ELBERT WALLER	CECILIA WHELPLEY
SOUTHERN COLLEGIATE INSTITUTE		ARVID P. ZETTERBERG
ALEDO		
HIGH SCHOOL	F. N. TAYLOR	A. F. CALDWELL
DRURY ACADEMY		W. L. RAY
ALTAMONT	WILLIAM HARRIS	GLADYS EADE
ALTON	R. A. HAIGHT	B. C. RICHARDSON
AMBOY	O. M. EASTMAN	JOHN E. WILFONG
ANNA		
HIGH SCHOOL	CHARLES MCGINNIS	C. A. HARPER
UNION ACADEMY		W. O. SHEWMAKER
ARCOLA	SHELDON R. ALLEN	
ARISPIE-INDIANTOWN Tp. (<i>Tiskilwa</i>)		KENNETH M. SNAPP
ARLINGTON HEIGHTS	O. R. ZOLL	ADA R. KUGER
ARMINGTON (<i>Hittle Tp.</i>)		EUNICE BLACKBURN
ARTHUR	GROVER SUMMERS	BERTHA LECHNER
ASHLAND	F. K. BRANOM	EMMA ARROWSMITH
ASHTON	JOHN S. NOFFSINGER	L. D. WYATT
ASSUMPTION Tp.		H. G. SPEAR
ASTORIA	J. R. ROWLAND	
ATLANTA	C. D. JACOBS	FRANCES CREWES
ATWOOD	GEORGE B. WEISIGER	ANNA STANSBURY
AUGUSTA	A. E. DECKER	MABEL GARWOOD
AUGUSTANA COLLEGE ACADEMY (<i>Rock Island</i>)		C. L. ESBJORN
AURORA		
EAST HIGH SCHOOL	C. M. BARDWELL	K. D. WALDO
WEST HIGH SCHOOL	A. S. KINGSFORD	K. C. MERRICK
JENNINGS SEMINARY		BERTHA BARBER
AUSTIN HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	GEORGE H. ROCKWOOD
EVERYVILLE HIGH SCHOOL (<i>Peoria</i>)	HARRY E. ILER	HAZEL BROAD
BARRY	VAIL CORDELL	
BATAVIA	H. A. BONE	E. S. WILLIAMSON
BEARDSTOWN	H. G. RUSSELL	MRS. H. G. RUSSELL
BELLEVILLE	GEORGE H. BUSIEK	H. W. BRUA
BELLFLOWER Tp.		DEAN M. INMAN
BELVIDERE	LEWIS A. REISNER	J. E. ALMON

*Notebook required.

School	Superintendent	Principal
BEMENT	OTTO WEEDMAN	ALBERT APPELEGATE
BENTON TP.		E. S. LAKE
BIGGSVILLE TP.		J. CHARLES McMILLAN
BLANDINSVILLE	JOHN E. CLUM	JOHN E. CLUM
BLOOMINGTON		
HIGH SCHOOL	J. K. STABLETON	WILLIAM WALLIS
ST. MARY'S HIGH SCHOOL		REV. M. WELDON
BLOOM TP. (<i>Chicago Heights</i>)		E. L. BOYER
BLUE ISLAND	J. E. LEMON	RAY D. CROUT
BOWEN	ALBERT A. HOLMES	ANNA L. WIGGLE
BOWEN HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	CHARLES I. PARKER
BRADFORD	F. W. DUNLAP	EDNA M. JOHNSON
BRADLEY POLYTECHNIC INSTITUTE (<i>Peoria</i>)		T. C. BURGESS
BRIDGEPORT TP.		A. F. TRAMS
BUSHNELL	T. W. EVERITT	MARY C. RASMUSSEN
CAIRO		
HIGH SCHOOL	T. C. CLENDENEN	MARGARET WILSON
SUMNER HIGH SCHOOL	T. C. CLENDENEN	JOHN C. LEWIS
CALUMET HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	GRANT BEEBE
CAMBRIDGE	H. M. HINKLE	ARTHUR L. LEWIS
CAMP POINT	W. H. BREWSTER	PEARL T. BROWN
CANTON	G. W. GAYLER	V. G. HELLER
CARLINVILLE	HARVEY T. WHITE	MARGARET HUBBARD
CARL SCHURZ HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	WALTER F. SLOCUM
CARLYLE	M. N. TODD	
CARMI TP.		JOSEPH GERSBACHER
CARROLLTON	EDWIN A. DOOLITTLE	
CARTERVILLE	R. G. CRISENBERRY	A. D. FREDERICK
CARTHAGE		
HIGH SCHOOL	D. H. WELLS	A. M. WILSON
CARTHAGE COLLEGE ACADEMY		H. D. HOOVER, PRES.
CASEY	W. G. THOMPSON	H. TRAUTMAN
CATLIN	R. H. PERROTT	OLIVE E. COFFEEN
CENTRAL HIGH SCHOOL (<i>Peoria</i>)	G. T. SMITH	A. W. BEASLEY
CENTRALIA TP.		ESTON V. TUBBS
CHAMPAIGN	W. W. ERNEST	LOTTIE SWITZER
CHARLESTON	DEWITT ELWOOD	
CHATHAM	C. P. CHAPMAN	
CHATSWORTH	L. C. SMITH	LYDDIA E. KLAMM
CHENOA	A. B. HIETT	MAUDE FAIRFIELD
CHESTER	S. E. REECHER	E. R. SAYRE
CHICAGO PUBLIC HIGH SCHOOLS	ELLA FLAGG YOUNG	
AUSTIN		GEORGE H. ROCKWOOD
BOWEN		CHARLES I. PARKER
CALUMET		GRANT BEEBE
CARL SCHURZ		WALTER F. SLOCUM
CRANE, R. T. (TECH.)		W. J. BARTHOLF
CURTIS		THOMAS G. HILL
ENGLEWOOD		JAMES E. ARMSTRONG
HARRISON TECHNICAL		FRANK L. MORSE
HYDE PARK		HIRAM B. LOOMIS
LAKE		EDWARD F. STEARNS
LAKE VIEW		B. FRANK BROWN
LANE TECHNICAL		W. J. BOGAN
MCKINLEY		GEORGE M. CLAYBERG
MARSHALL		LOUIS J. BLOCK
MEDILL		AVON S. HALL
MORGAN PARK		JOHN H. HEIL
PHILLIPS		SPENCER R. SMITH
SENN		BENJAMIN F. BUCK
TULEY		FRANKLIN P. FISK
WALLER		OLIVER S. WESTCOTT
CHICAGO PRIVATE SCHOOLS		
LATIN SCHOOL		R. P. BATES
HARVARD SCHOOL		J. J. SCHOBINGER
F. W. PARKER SCHOOL		FLORA J. COOKE
KENWOOD INSTITUTE		MRS. STELLA DYER-LORING
LOYOLA ACADEMY		SIMON NICHOLAS, S. J.
NORTH PARK COLLEGE ACADEMY		C. J. WILSON
STARRETT SCHOOL FOR GIRLS		MRS. HELEN E. STARRETT
UNIVERSITY HIGH SCHOOL		F. W. JOHNSON
CHICAGO HEIGHTS		
BLOOM TP. HIGH SCHOOL		E. L. BOYER
CRILLICOTHE TP.		ARTHUR M. WELLS
CHRISMAN TP.		P. M. WATSON
CICERO		
J. STERLING MORTON TP.		H. V. CHURCH
CLAYTON	T. J. HANEY	
CLINTON	H. H. EDMUNDS	
COLFAX	P. M. HOKE	

School	Superintendent	Principal
COLLEGIATE INSTITUTE (<i>Geneseo</i>)		NORBURY W. THORNTON
COLLINSVILLE TP.		A. E. ARENDT
CRANE, R. T. (TECH.) HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	W. J. BARTHOLF
CRYSTAL LAKE	H. A. DEAN	G. W. WEAVER
CURTIS HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	THOMAS G. HILL
DALLAS CITY	ELSIE H. GIESE	HOWARD LEINBAUGH
DANVILLE	G. F. RANDLE	A. W. SMALLEY
DECATUR	J. O. ENGLEMAN	JESSE H. NEWLON
DE KALB TP.		F. M. GILES
DE LAVAN	M. R. STAKER	MARIE F. TATE
DES PLAINES, MAINE TP.		H. L. HOWARD
DIXON		
HIGH SCHOOL	W. R. SNYDER	C. H. ANDERSON
NORTH DIXON HIGH SCHOOL	H. H. HAGEN	GLADYS GAYLORD
DOWNER'S GROVE	G. C. BUTLER	M. MAUDE MANLEY
DRURY ACADEMY (<i>Aledo</i>)		W. L. RAY
DRUMMER TP. (<i>Gibson City</i>)		H. T. MCKINNEY
DUNDEE	J. V. CLARK	
DU QUOIN TP.		C. W. HOUK
DWIGHT	C. A. BROTHERS	ELLA M. BROWN
EARLVILLE	LOYD B. MANN	
EAST HIGH SCHOOL (<i>Aurora</i>)	C. M. PARDWELL	K. D. WALDO
EAST MOLINE TP.		D. B. HOFFMAN
EAST ST. LOUIS	D. WALTER POTTS	H. J. ALVIS
EDWARDSVILLE	CHARLES F. FORD	J. G. STULL
EFFINGHAM	O. C. BAILEY	
ELDORADO TP.		OREN A. BARR
ELGIN		
HIGH SCHOOL	ROBERT I. WHITE	W. L. GOBLE
ELGIN ACADEMY		H. M. BUCKLEY
ELIZABETH	W. B. STORM	
ELMHURST		
HIGH SCHOOL	A. M. NICHOLSON	JOHN C. HOSKINSON
EVANGELICAL PROSEMINAR		DANIEL IRION, DIRECTOR
ELMWOOD	C. C. CONDIT	HARRIET E. ERLBACHER
EL PASO UNION	CARL MOORE	SYLVIA E. SMITH
ENGLEWOOD HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	JAMES E. ARMSTRONG
EQUALITY TP.		E. L. STEWART
EUREKA	W. E. CRAFT	MABEL DEARTH
EVANGELICAL PROSEMINAR (<i>Elmhurst</i>)		DANIEL IRION, DIRECTOR
EVANSTON		
TOWNSHIP HIGH SCHOOL		W. F. BEARDSLEY
EVANSTON ACADEMY		N. W. HELM
FAIRBURY TP.		E. W. POWERS
FAIRFIELD		
FARMER CITY		
MOORE TP.		H. D. EICKELBERG
FERRY HALL (<i>Lake Forest</i>)		FRANCES LAURA HUGHES
FLORA		
HARTER-STANFORD TP.		S. J. CURLEE
FORREST	DEAN PARRILL	ADA L. RUSH
FRANCES SHIMER SCHOOL (<i>Mt. Carroll</i>)		WM. P. MCKEE, DEAN
FREEMONT	S. E. RAINES	L. A. FULWIDER
FULTON	HARRY B. PRICE	MRS. C. R. FLATT
GALENA	G. W. MENZIMMER	KATHARINE H. OBYE
GALESBURG	W. L. STEELE	A. W. WILLIS
GALVA	F. U. WHITE	
GENESEO		
TOWNSHIP HIGH SCHOOL		F. J. MABREY
COLLEGIATE INSTITUTE		NORBURY W. THORNTON
GENEVA	H. M. COULTRAP	
GENOA	O. E. TAYLOR	MARGARET SPRAKER
GEORGETOWN TP.		O. P. REES
GIBSON CITY		
DRUMMER TP.		H. T. MCKINNEY
GILMAN	J. B. WALLACE	
GODFREY		
MONTICELLO SEMINARY		MARTINA C. ERICKSON
GRAND PRAIRIE SEMINARY (<i>Onarga</i>)		HUBERT PHILLIPS
GRANITE CITY	L. P. FROHARDT	W. F. COOLIDGE
GREENFIELD	W. C. SUFT	
GREENUP	CLYDE C. SIMS	
GREENVILLE	S. S. SIMPSON	
GRIGGSVILLE	THEO. C. MOORE	
HAMILTON	J. A. JOHNSTON	
HARRISBURG TP.		LOLA A. HAWKINS
HARRISON TECHNICAL HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	PHILENA CLARKE
		HARRY TAYLOR
		FRANK L. MORSE

School	Superintendent	Principal
HARTER-STANFORD TP. (<i>Flora</i>)		S. J. CURLEE
HARVARD	J. H. LIGHT	FLOYD DEWHIRST
HARVARD SCHOOL (<i>Chicago</i>)		J. J. SCHOBINGER
HARVEY		L. W. SMITH
THORNTON TP.		
HAVANA	T. S. HENRY	ROWENA E. WILSON
HEBRON	M. S. HAMM	FLORENCE SCHARFENSTEIN
HENRY	W. E. KING	T. H. SCHUTTE
HERRIN TP.		HIRAM B. LOOMIS
HYDE PARK HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	MRS. LILLIAN ANDERSON
HEYWORTH	L. R. BLOHM	C. L. DIETZ
HIGHLAND	C. L. DIETZ	
HIGHLAND PARK		
TOWNSHIP HIGH SCHOOL		R. L. SANDWICK
NORTHWESTERN MILITARY AND NAVAL ACADEMY		DR. H. H. ROGERS
HILLSBORO	H. J. BECKEMEYER	J. M. AVERY
HINCKLEY	OMAR CASWELL	AGNES MEIKLE
HINDSBORO UNION	O. V. SCHAEFFER	MABEL K. EDMONSON
HINSDALE TP.	C. E. DOUGLASS	O. J. COE
HITTLE TP. (<i>Armington</i>)		EUNICE BLACKBURN
HOMER	GEORGE B. ROUIT	
HOOFESTON	S. K. McDOWELL	
HUME	W. F. WOLLENHAUPT	ORVILLE O. WHITE
HUTSONVILLE TP.		HARRY THRASHER
ILLINOIS WOMAN'S COLLEGE ACADEMY		
(<i>Jacksonville</i>)		
ILLIOPOLIS	W. P. SULLIVAN	JOSEPH R. HARKER, PRFS.
INDUSTRY TP.		LOUISE GATES
JACKSONVILLE		R. H. MALCOMSON
HIGH SCHOOL	C. E. COLLINS	C. A. R. STONE
ILLINOIS WOMAN'S COLLEGE ACADEMY		JOSEPH R. HARKER, PRES.
ROUTT COLLEGE ACADEMY		LEO T. HICKSON
WHIPPLE ACADEMY		C. H. RAMMELKAMP
JENNINGS SEMINARY (<i>Aurora</i>)		BERTHA A. BARBER
JERSEYVILLE	J. PIKE	E. B. SHAFER
JOHNSTON CITY	F. D. HARWOOD	C. J. RAMSAY
JOHN SWANEY SCHOOL (<i>McNabb</i>)		E. D. LAWRENCE
JOLIET TP.		J. STANLEY BROWN
J. STERLING MORTON TP. (<i>Cicero</i>)		H. V. CHURCH
KANKAKEE	F. N. TRACY	W. R. TOWSLEY
KANSAS	R. B. HENLEY	AUDREY DYKEMAN
KEITHSBURG	R. C. HIETT	H. V. PORTER
KENILWORTH		
NEW TRIER TP.		H. E. BROWN
KENWOOD INSTITUTE (<i>Chicago</i>)		MRS. STELLA DYER-LORING
KEWANEE	W. R. CURTIS	
KINMUNDY	E. V. LATHAM	GUS A. SPITZE
KNOXVILLE	G. G. LAFFERTY	C. V. EASUM
LACON UNION	S. J. MCCOMIS	NORA L. BORCHERS
LA GRANGE		
LYONS TP.		G. H. WILKINSON
LA HARPE	JUSTIN A. STEWART	JANE ROBERTSON
LAKE HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	EDWARD F. STEARNS
LAKE FOREST		
LAKE FOREST ACADEMY		
FERRY HALL		
LAKE VIEW HIGH SCHOOL (<i>Chicago</i>)		JOHN W. RICHARDS
LANARK	CHARLES S. COBB	MIRIAM L. CONVERSE
LANE TECHNICAL HIGH SCHOOL (<i>Chicago</i>)		B. FRANK BROWN
LA SALLE-PERU TP. (<i>La Salle</i>)		FERN WEBBER
LATIN SCHOOL (<i>Chicago</i>)		W. J. BOGAN
LAWRENCEVILLE TP.		T. J. MCCORMACK
LENA	F. P. DONNER	R. P. BATES
LE ROY	W. A. GOODIER	F. W. COX
LEWISTOWN	C. B. SMITH	ELSIE ENGLISH
LEXINGTON	THEO. F. FIEKER	BERT REEVES
LIBERTYVILLE	WILLIAM HAWKES	G. E. ROUND
LINCOLN	H. AMBROSE PERRIN	
LITCHFIELD		J. L. BOWMAN
LOCKPORT TP.		
LODA	GEORGE H. WELLS	ALFRED LIVINGSTON
LOVINGTON TP.		
LOYOLA ACADEMY (<i>Chicago</i>)		L. W. CHATHAM
LYONS TP. (<i>La Grange</i>)		SIMON NICHOLAS, S. J.
MCKINLEY HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	G. H. WILKINSON
MCLEAN	J. H. YODER	GEORGE M. CLAYBERG
MCLEANSBORO	L. G. HICKMAN	BELLE FAIRFIELD
MENABE		ROBERT WILSON
JOHN SWANEY SCHOOL		E. D. LAWRENCE
MACOMB		
HIGH SCHOOL	T. M. BIRNEY	B. H. WATT
WESTERN ILLINOIS STATE NORMAL ACADEMY		W. P. MORGAN, PRES.

School	Superintendent	Principal
MADISON	LOUIS BAER	MARGARET LOCKLAND
MAGNOLIA	A. F. BUTTERS	H. L. HOWARD
MAINE TP. (<i>Des Plaines</i>)		LOIS A. MORROW
MANSFIELD	J. A. ALEXANDER	MYRTLE STAHL
MANTENO	C. W. EATON	WILLIAM N. BROWN
MANUAL TRAINING HIGH SCHOOL (<i>Peoria</i>)	E. A. GARDNER	CHARLES O. HASKELL
MARENGO		OREN COLEMAN
MARION TP.	E. A. COLLINS	ELINORE A. BATES
MARSEILLES		ANNA J. McNABNEY
MARISSA TP.		LOUIS J. BLOCK
MARSHALL HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	LEWIS WILLIAMS
MARSHALL TP.		
MARTINSVILLE	E. D. ABBOTT	L. P. CURRY
MASON CITY	G. A. BUZZARD	H. B. BLACK
MATTOON	J. F. WILEY	
MAYWOOD		JOHN E. WITMER
PROVISO TP.		E. C. SHIELDS
MAZON TP.		AVON S. HALL
MEDILL HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	FLORENCE SCHAFER
MENDON	HEYWOOD COFFIELD	B. J. DEAN
MENDOTA	J. H. BROWNING	
METROPOLIS	M. N. MCCARTNEY	PEARL HICKMAN
MILFORD TP.	H. W. McCULLOCH	E. P. NUTTING
MINONK	GUY R. FRENCH	
MOLINE	C. H. MAXSON	MARY FINDLEY
MOMENCE		RUBY L. ALLEN
MONMOUTH	C. E. JOINER	MARTINA C. ERICKSON
MONTICELLO	A. W. GROSS	H. D. EICKELBERG
MONTICELLO SEMINARY (<i>Godfrey</i>)		JOHN H. HEIL
MOORE TP. (<i>Farmer City</i>)		HARRY D. ABELLS
MORGAN PARK HIGH SCHOOL (<i>Chicago</i>)		
MORGAN PARK ACADEMY		
MORRIS	E. D. MARTIN	MARY L. BARNES
MORRISON	W. E. WEAVER	P. A. TATE
MORRISONVILLE	MATILDA J. PINKERTON	T. L. COOK
MORTON TP.		MARY ROBERSON
MOUND CITY	C. L. McCABE	J. T. DORRIS
Mt. CARMEL	A. S. ANDERSON	
Mt. CARROLL		GAYLE H. AU
HIGH SCHOOL	G. V. CLUM	W. P. McKEE, DEAN
FRANCES SHIMER SCHOOL		J. E. MILLER
Mt. MORRIS COLLEGE ACADEMY		L. F. FULWILER
Mt. PULASKI TP.		CLARA LOUISE DOOCY
Mt. STERLING	M. L. TEST	JAMES M. DIXON
Mt. VERNON TP.		J. EARL HIETT
MOWEAQUA	C. W. YERKES	G. J. KOONS
MURPHYSBORO TP.		V. B. GRAHAM
NAPERVILLE		C. J. ATTIG
HIGH SCHOOL	O. A. WATERMAN	R. E. HILLER
NORTHWESTERN COLLEGE ACADEMY	W. C. FAIRWEATHER	W. L. HAGAN
NASHVILLE		J. H. TRINKLE
NEOGA TP.		H. E. BROWN
NEWMAN TP.	C. E. GIRHARD	LUCILE HESKETT
NEWTON	W. P. THACKER	
NEW TRIER TP. (<i>Kenilworth</i>)		E. L. KING
NOKOMIS	C. F. MILLER	RALPH W. PRINGLE
NORMAL	H. H. HAGAN	GLADYS GAYLORD
HIGH SCHOOL		C. J. WILSON
UNIVERSITY HIGH SCHOOL		C. J. ATTIG
NORTH HIGH SCHOOL (<i>Dixon</i>)		DR. H. H. ROGERS
NORTH PARK COLLEGE ACADEMY		D. O. KIME
(<i>Chicago</i>)		M. R. McDANIEL
NORTHWESTERN COLLEGE ACADEMY		NELLE PERRY
(<i>Naperville</i>)		MISS H. LYONS
NORTHWESTERN MILITARY ACADEMY		H. W. HOSTETTLER
(<i>Highland Park</i>)		
OAKLAND	G. W. SUTTON	HUBERT PHILLIPS
OAK PARK AND RIVER FOREST TP. (<i>Oak Park</i>)		SUE L. WILSON
OBLONG	V. I. BROWN	CHARLES H. KINGMAN
ODELL	V. T. SMITH	W. H. HUGHES
OLNEY TP.		D. B. FAGER
ONARGA		W. E. ANDREWS
HIGH SCHOOL	S. E. LE MAR	
GRAND PRAIRIE SEMINARY	F. G. TAYLOR	
OREGON		
OTTAWA TP.		
PALATINE TP.		
PALESTINE TP.		
PANA TP.		

School	Superintendent	Principal
PARIS	J. G. MOORE	FLORA J. COOKE
F. W. PARKER SCHOOL (<i>Chicago</i>)		W. B. ROSE
PAWNEE TP.	HENRY E. COBB	GRACE M. CURRIER
PAW PAW	O. J. BAINUM	G. E. TRUE
PAXTON	ROBERT C. SMITH	
PEKIN		SISTER MARIETTA
PEORIA		HAZEL BROAD
ACADEMY OF OUR LADY	HARRY E. ILER	T. C. BURGESS, DIRECTOR
AVERYVILLE HIGH SCHOOL		A. W. BEASLEY
BRADLEY POLYTECHNIC INSTITUTE	G. T. SMITH	WILLIAM N. BROWN
CENTRAL HIGH SCHOOL		
MANUAL TRAINING HIGH SCHOOL		
PEOTONE	L. A. JOEL	
PETERSBURG	H. A. PAINE	
PHILLIPS HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	SPENCER R. SMITH
PITTSFIELD	J. C. REEDER	
PLAINFIELD	H. J. BASSLER	VERNE E. PERRY
PLANO	R. E. LOCKE	H. L. TATE
POLO	H. B. URBAN	
PONTIAC TP.		ARTHUR VERNER
PRINCETON TP.		W. R. SPURRIER
PRINCEVILLE	W. M. LOY	PEARL B. HOOD
PROPHETSTOWN	V. R. MCKNIGHT	A. H. KAZDA
PROVISO TP. (<i>Maywood</i>)		JOHN E. WITMER
QUINCY		
HIGH SCHOOL	E. G. BAUMAN	ZENS L. SMITH
ST. MARY'S ACADEMY		MOTHER MARY PETRA
RANTOUL	E. H. MILLER	JESSIE MCHARRY
RAYMOND	W. F. GROTT	F. J. DU FRAIN
RICHMOND	OSWELL G. TREADWAY	
RIDGEFARM TP.		L. A. TOHILL
RIVERSIDE	A. F. AMES	T. H. ZIEGLER
ROBINSON TP.		J. O. MARBERRY
ROCHELLE	LEWIS A. MAHONEY	R. A. SCHEER
ROCK FALLS	E. O. PHARES	BESSIE PRICE
ROCKFORD	R. G. JONES	C. P. BRIGGS
ROCK ISLAND		
HIGH SCHOOL	E. C. FISHER	A. J. BURTON
AUGUSTANA COLLEGE ACADEMY		C. L. ESRJORN
VILLA DE CHANTAL	MOTHER BORGIA	SISTER MARY AGNES
ROLLO CONSOLIDATED	J. O. STANBERRY	J. A. TATE
ROODHOUSE		C. A. WHITESIDE
ROSEVILLE TP.		H. L. KESSLER
ROSSVILLE	I. A. SMOTHERS	
RUSHVILLE	C. E. KNAPP	
RUTLAND	W. E. GUTTERIDGE	JANET ARIE
ST. ANNE	E. L. KIMBALL	
ST. CHARLES	M. F. MCAULEY	M. J. LANGWILL
ST. ELMO	CHARLES E. KUECHLER	
ST. MARY'S ACADEMY (<i>Quincy</i>)		MOTHER MARY PETRA
ST. MARY'S HIGH SCHOOL (<i>Bloomington</i>)		SISTER MARIE ALPHONSE
SALEM	H. J. BLUE	H. J. KARCH
SANDWICH	W. W. WOODBURY	MAUD WEBSTER
SAVANNA TP.		C. M. HIGGINS
SAVERBROOK	GEORGE WHITE	FRANCES HANSON
SENN HIGH SCHOOL (<i>Chicago</i>)		BENJ. F. BUCK
SHEFFIELD	J. H. MARTIN	J. H. MARTIN
SHELBYVILLE	A. F. LYLE	I. B. POTTER
SHELDON	P. F. GROVE	INA V. MEREDITH
SIDELL TP.		VIRLON W. MCINTIRE
SOUTHERN COLLEGIATE INSTITUTE (<i>Albion</i>)		ARVID P. ZETTERBERG
SPARTA	St. JOHN W. WILTON	
SPRINGFIELD		
HIGH SCHOOL	H. S. MAGILL, JR.	F. D. THOMSON
URSULINE ACADEMY		MOTHER PAUL
STANFORD	W. BROOKS WILES	MRS. CECIL R. WILES
STAUNTON	WILLIAM E. ECCLES	
STERLING TP.		E. T. AUSTIN
STOCKLAND TP.		OTTIS HOSKINSON
STOCKTON	J. C. MYERS	I. S. CLARK
STONINGTON	G. E. LOWRY	RACHEL PARISH
STREATOR TP.		O. A. RAWLINS
STRONGHURST	WALTER S. POPE	LUCILE WHITE
SULLIVAN	B. H. GAULT	
SYCAMORE	O. E. PETERSON	EDNA M. KOCH
TAYLORVILLE TP.		R. G. BEALS
THORNTON TP. (<i>Harvey</i>)		L. W. SMITH
TISKILWA		KENNETH M. SNAPP
JOINT TP.		EUGENE MENDENHALL
TOULON TP.		

School	Superintendent	Principal
TULEY HIGH SCHOOL (<i>Chicago</i>)	ELLA FLAGG YOUNG	FRANKLIN P. FISK
TUSCOLA	W. D. WALDRIP	J. C. HAMMOND
UNION ACADEMY (<i>Anna</i>)		W. O. SHEWMAKER
UNIVERSITY HIGH SCHOOL (<i>Chicago</i>)		F. W. JOHNSON
UPPER ALTON		GEORGE D. EATON
WESTERN MILITARY ACADEMY		M. L. FLANINGAM
URBANA	A. P. JOHNSON	MOTHER PAUL
URSULINE ACADEMY (<i>Springfield</i>)		
VANDALIA	LEWIS OGILVIE	
VERMILION GROVE		S. R. LAMB
VERMILION ACADEMY		SISTER MARY AGNES
VILLA DE CHANTAL (<i>Rock Island</i>)		E. C. FRANKLIN
VILLA GROVE	H. L. DYAR	
VIRGEN	CLYDE SLONE	
VIRGINIA		OLIVER S. WESTCOTT
WALLER HIGH SCHOOL (<i>Chicago</i>)		E. A. LANSCHÉ
WALNUT	R. GRIGSBY	
WARREN	R. I. LEWIS	LEOLA MORRIS
WASHBURN	L. ADA KREIDER	
WASHINGTON	P. M. SMITH	MARY J. LAYCOCK
WATERLOO	JAMES E. RAIBOURN	W. C. KNOELK
WATSEKA	L. W. HAVILAND	J. GRACE WALKER
WAUKEGAN TP.		NORMA CONYNE
WENONA	R. E. GARRETT	K. C. MERRICK
WEST CHICAGO	H. H. KIRKPATRICK	
WEST HIGH SCHOOL (<i>Aurora</i>)	A. S. KINGSFORD	
WESTERN ILLINOIS STATE NORMAL ACADEMY		W. P. MORGAN, PRES.
(<i>Macomb</i>)		
WESTERN MILITARY AND NAVAL ACADEMY		GEORGE D. EATON
(<i>Upper Alton</i>)		
WESTFIELD COLLEGE ACADEMY	J. E. LUNG	CHARLES O. MADSON
WESTVILLE		ELLA M. GREGG
WHEATON	J. B. RUSSELL	W. F. RICE, DEAN
HIGH SCHOOL		C. H. RAMMELKAMP
WHEATON COLLEGE ACADEMY		ROBERT G. SMITH
WHIPPLE ACADEMY (<i>Jacksonville</i>)	J. B. HENDRICKS	
WHITE HALL		MYRTLE SCOTT
WILMINGTON	CHARLES W. SMITH	A. M. HOLTZMANN
WINCHESTER	R. W. BARDWELL	R. F. GRANER
WOODSTOCK	C. W. PRATT	ELIZABETH M. HATCH
WYOMING	F. W. ACKERMAN	
YORKVILLE		

PARTIALLY ACCREDITED SCHOOLS

BYRON	H. V. LYNN	ANGELINE WILLOUGHBY
EAST ST. LOUIS		
LINCOLN HIGH SCHOOL		
FARMINGTON	E. A. HUFF	
KNOXVILLE		
ST. ALBAN'S SCHOOL		L. B. HASTINGS, RECTOR

DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

The amount of work in each of the foregoing subjects which corresponds to the minimum number of credits assigned is shown by the description of subjects below.

1. AGRICULTURE.—Courses in agriculture should be arranged for periods of not less than 36 weeks. Such a course may be accepted for one unit of entrance credit, and two such courses may be accepted for two units, provided the work covered by each course is so closely related in its parts as to constitute one of the generally accepted divisions now recognized in agricultural work. At least one-half the time should be devoted to laboratory work, and note-books should be presented.

2. ALGEBRA.—Fundamental operations, factoring, fractions, simple equations, involution, evolution, radicals, quadratic equations and equations reducible to the quadratic form, surds, theory of exponents, and the analysis and solution of problems involving these.

3. ASTRONOMY.—In addition to a knowledge of the descriptive matter in a good text-book, there must be some practical familiarity with the geography of

the heavens, with the various celestial motions, and with the positions of the conspicuous naked-eye heavenly bodies.

4. **BOOKKEEPING.**—The unit of work in bookkeeping for college entrance should consist of a working knowledge of both single and double entry bookkeeping for the usual lines of business. The student should be able to change his books from single to double entry and from individual to proprietorship. At least one set of transactions should be kept by single entry and at least two sets by double entry in which the uses of the ordinary bookkeeping books and commercial papers should be involved. The student should be drilled in the making of profit and loss statements and of balance sheets and should be able to explain the meanings of the items involved in both kinds of instruments. The work should be done under the immediate supervision of a teacher and the student should devote at least ten periods of not less than forty minutes full time in class each week for one academic year.

5. **BOTANY.**—A familiar acquaintance with the general structure of plants and of the principal organs and their functions, derived to a considerable extent from a study of the objects, is required; also a general knowledge of the main groups of plants; and the ability to classify and name the more common species. Laboratory note-books and herbarium collections should be presented.

6. **BUSINESS LAW.**—The amount of business law which is accepted is indicated by the ground covered in any of the ordinary text-books on the subject, such as Spencer's *Elements of Commercial Law*, Burdick's *Business Law*, and White's *Elements of Commercial Law*.

7. **CHEMISTRY.**—The instruction must include both text-book and laboratory work. The work should be so arranged that at least one-half of the time shall be given to the laboratory. The course as it is given in the best high schools in one year will satisfy the requirements of the University for the one unit for admission. The laboratory notes, bearing the teacher's indorsement, must be presented as evidence of the actual laboratory work accomplished. Candidates for admission may be required to demonstrate their ability by laboratory tests.

8. **CIVICS.**—Such an amount of study of the American Government, its history and interpretation, as is indicated by any of the usual high-school text-books on civil government, is regarded as sufficient for one term. The work may advantageously be combined with the elements of political economy.

9. **COMMERCIAL GEOGRAPHY.**—The amount and character of the work accepted in this subject is indicated by the scope of such books as Redway's *Commercial Geography*, Adam's smaller book on the same subject, the text-books of Brigham, or Robinson, or Trotter's work.

10. **DOMESTIC SCIENCE.**—(a) An equivalent of 180 hours of prepared work with at least two recitation periods a week in foods. (b) An equivalent of 180 hours of prepared work with at least one recitation period a week in clothing. (c) An equivalent of 180 hours of prepared work with at least two recitation periods a week on the home. (Two periods of laboratory work are considered equivalent to one period of prepared work.) Of the foregoing, (a) will be accepted as a unit's work; or two half units taken from (a) and (b), or (a) and (c), or (b) and (c) will be accepted as a unit's work. The work is to be done by trained teachers with individual equipment, as determined by inspection.

11. **DRAWING.**—Free-hand or mechanical drawing, or both. Drawing-books or plates must be submitted. The number of credits allowed depends on the quantity and quality of the work submitted.

12. **ECONOMICS.**—The principles of economics, with economic history, as given in any good elementary text-book.

13. **ENGLISH COMPOSITION AND RHETORIC.**—Correct spelling, capitalization, punctuation, paragraphing, idiom, and definition; the elements of rhetoric. The candidate will be required to write two paragraphs of about one hundred fifty words each to test his ability to use the English language. This work counts for one unit.

14. **ENGLISH LITERATURE.**—(a) Each candidate is expected to have read certain assigned literary masterpieces, and will be subjected to such an examination as will determine whether or not he has done so. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups, from which at least ten units are to be selected, two from each group. Each unit is here set off by semicolons.

I. The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; Virgil's Aeneid. The Iliad, the Odyssey, and the Aeneid should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

II. Shakespeare's Merchant of Venice; Midsummer Night's Dream; As You Like It; Twelfth Night; Henry the Fifth; Julius Caesar.

III. Defoe's Robinson Crusoe, Part I; Goldsmith's Vicar of Wakefield; Scott's Ivanhoe or Quentin Durward; Hawthorne's House of Seven Gables; Dickens' David Copperfield or Tale of Two Cities; Thackeray's Henry Esmond; Mrs. Gaskell's Cranford; George Eliot's Silas Marner; Stevenson's Treasure Island.

IV. Bunyan's Pilgrim's Progress, Part I; The Sir Roger de Coverley Papers in the Spectator; Franklin's Autobiography (condensed); Irving's Sketch Book; Macaulay's Essays on Lord Clive and Warren Hastings; Thackeray's English Humorists; selections from Lincoln, including the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, with a brief memoir or estimate; Parkman's Oregon Trail; either Thoreau's Walden or selection from Huxley's Lay Sermons; Stevenson's Inland Voyage and Travels with a Donkey.

V. Palgrave's Golden Treasury (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, Burns; Gray's Elegy in a Country Churchyard and Goldsmith's Deserted Village; Coleridge's Ancient Mariner and Lowell's Vision of Sir Launfal; Scott's Lady of the Lake; Byron's Childe Harold, Canto IV, and Prisoner of Chillon; Palgrave's Golden Treasury (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's Raven, Longfellow's Courtship of Miles Standish, Whittier's Snow Bound; Macaulay's Lays of Ancient Rome and Arnold's Sohrab and Rustum; Tennyson's Gareth and Lynette, Lancelot and Elaine, The Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City.

(b) In addition to the foregoing the candidate will be required to present a careful, systematic study, with supplementary reading, of the history of either English or American literature.

(c) The candidate will be examined on the form and substance of certain books in addition to those named under (a). For 1915 the books will be selected from the list below. The examination will be of such a character as to require a minute study of each of the works named in order to pass it successfully. The list is:

Shakespeare's *Macbeth*; Milton's *Comus*, *L'Allegro*, and *Il Penseroso*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *Life of Johnson*, or Carlyle's *Essay on Burns*.

The work outlined in (a), (b), and (c) counts for two units.

(d) The three units in English composition, rhetoric, and literature, as described above, are required for all students. A fourth unit may be obtained for one full year's additional work in the study of English and American authors.

15. FRENCH.—*First year's work*.—Elementary grammar, with the more common irregular verbs. Careful training in pronunciation. About 100 pages of easy prose should be read.

Second year's work.—Advanced grammar, with all the irregular verbs. Elementary composition, and conversation. About 300 pages of modern French should be read.

Third year's work.—Intermediate composition, and conversation. About 500 pages of standard authors should be read, including a few classics.

Fourth year's work.—Advanced composition, and conversation. Standard modern and classical authors should be read and studied to the extent of 700 pages.

16. GEOLOGY.—The student must show familiarity with the principles of dynamic and structural geology, and some acquaintance with the facts of historical geology as presented in Scott's *Introduction to Geology*, Brigham's *Text-book of Geology*, or an equivalent, together with at least an equal amount of time spent in laboratory and field work. The laboratory work should follow one or more of the lines indicated below, and note-books should be presented showing the character and amount of work done. (a) Studies of natural phenomena occurring in the neighborhood which illustrate the principles of dynamic geology. Each study should include a careful drawing of the object and a written description of the way in which it was produced. (b) Studies of well-marked types of crystalline, metamorphic, and sedimentary rocks which will enable the student to recognize each type and state clearly the conditions under which it was formed. (c) Studies of minerals of economic value, including the characteristics of each, its origin, and the uses to which it is put. (d) Studies of the types of soil occurring in the neighborhood, including the origin of each and the cause of differences in appearance and fertility.

17. GEOMETRY.—(a) *Plane Geometry*. Special emphasis is placed on the ability to use propositions in the solution of original numerical exercises and of supplementary theorems.

(b) *Solid and Spherical Geometry*. Applications to the solution of original exercises are emphasized.

18. GERMAN.—It is recommended that pupils be trained to understand spoken German and to reproduce freely in writing and orally what has been

read. Whatever method of teaching is used, however, a thorough knowledge of grammar is expected. No attempt is made in what follows to give more than a general outline for the work of successive years, but the German department welcomes inquiries from teachers who wish further suggestions in the planning of courses.

First Year's Work.—At the end of the year pupils should be able to read intelligently and with accurate pronunciation simple German prose, to translate it into idiomatic English, and to answer in German easy questions on the passage read. A few short poems may well be memorized. Elementary grammar should be mastered up to the subjunctive as arranged in most books for beginners. Easy prose composition rather than the writing of forms will be the test of this grammatical work in entrance examinations given by the University.

Second Year's Work.—Only modern writers should be read, preference being given to material which has a distinctly German atmosphere and which lends itself readily to conversational treatment in the class room. The regular recitations should afford constant oral and written drill on the elementary grammar of the previous year. In addition, the beginner's book should be completed, but more importance is attached to accuracy and facility in simple modes of expression than to a theoretical knowledge of advanced syntax.

Third Year's Work.—Most of the time should still be devoted to good modern prose. There should be some work in advanced prose composition—based on German models—and the daily recitations should continue to afford abundant oral practise. Pupils ought by this time to understand spoken German fairly well.

Fourth Year's Work.—At the end of this year a pupil should be able to read at sight any prose or verse of moderate difficulty. He should also be able to express himself orally or in writing with considerable readiness and a high degree of accuracy. It is recommended that work in composition take the form of free reproduction of portions of the texts studied rather than translation of English selections. The reading should be divided about equally between modern and classical authors.

19. GREEK.—*First Year's Work.*—The exercises in any of the beginning books, and one book of the *Anabasis* or its equivalent.

Second Year's Work.—Two additional books of the *Anabasis* and three of Homer, or their equivalents, together with an amount of Greek prose composition equal to one exercise a week for one year.

Third Year's Work.—Three additional books of the *Iliad*, three of the *Odyssey*, and Books VI, VII, VIII of Herodotus, or an equivalent from other authors.

20. HISTORY.—One, two, or three units may be presented, to be chosen from the following list:

- Ancient history to 800 A. D., one unit.
- Medieval and modern history, one unit.
- English history, one-half or one unit.
- American history, one-half or one unit.

Examinations for entrance will be given in all these subjects. The examination for each unit is intended to cover one full year of high-school work.

21. LATIN.—*First Year's Work.*—Such knowledge of inflections and syntax as is given in any good preparatory Latin book, together with the ability to read simple fables and stories.

Second Year's Work.—Four books of Caesar's Gallic War, or its equivalent in Latin of equal difficulty; the ability to write simple Latin based on the text.

Third Year's Work.—Six orations of Cicero; the ability to write simple Latin based on the text; the simpler historical references and the fundamental facts of Latin syntax.

Fourth Year's Work.—Six books of Virgil's Aeneid, with history and mythology; the scansion of hexameter verse.

22. **MANUAL TRAINING.**—The requirement for one unit is the equivalent of 360 forty-minute periods in manual training following the syllabus prepared by the manual-training section of the High School Conference.

23. **MUSIC.**—At the present time, no high schools are accredited in music, and credit is therefore given only by examination at the University. As fast as possible, schools offering acceptable work in music will be accredited therefor. In the examination for two units in *piano*, students are required to play the following or the equivalent: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, two-part invention; Czerny, Op. 229; an easy sonata of Haydn, Mozart, or Beethoven. In the examination for two units in *voice*, students are required to sing the following or the equivalent: Simple scales and arpeggios; studies selected from Concone, Sieber, Panofka, and Panseron; songs selected from Schubert, Schumann, and Mendelssohn. In the examination for two units in *violin*, students are required to play the following or the equivalent: Gordon's Fountain Studies; Hermann's Scale Studies; Wohlfahrt's Etudes, Book I; Kayser's Etudes; Pleyel, Duet; selections from Weiss and Blumenstengel; miscellaneous pieces by Dacla, Papini, Weidig, Sitt, etc.

24. **PHYSICS.**—One year's high-school work covering the elements of physical science as presented in the best of the current high-school text-books of physics. Laboratory practise in elementary quantitative experiments should accompany the text-book work. The candidate's laboratory note-book will be considered as part of the examination.

25. **PHYSICAL GEOGRAPHY.**—The amount and character of the work required may be seen by referring to the texts of Gilbert and Brigham, or Davis; the recitations must be supplemented by at least an equal amount of time devoted to laboratory work. The laboratory exercises should follow one or more lines such as are indicated below. Each student should present a note-book showing what he has done.

(a) Studies in mathematical geography in which map and scale only are used. These should embrace such topics as length of a degree in longitude in various latitudes; length and breadth of continents, etc., in degrees and miles; relative latitudes of places; distances between cities, etc., in degrees and miles; difference in length of parallels and meridians; problems in time; location of time belts, etc.

(b) Studies of local topographic features which illustrate the various phases of stream work. Each study should include a drawing or topographic map of the object, and a full, clear description of the way in which it was formed.

(c) Studies of glacial deposits as shown in terminal and ground moraines, kames, eskers, etc.; distribution of dark and light colored soils; occurrences of lakes, ponds, gravel beds, clay banks, and waterbearing strips of sand and gravel.

(d) Studies of stream work as shown in the topographical sheets which may be obtained from the United States Geological Survey at a nominal cost.

(e) Studies of the form, size, direction and rate of movement of high and low barometer areas, and the relation of these to direction of wind, character of cloud, distribution of heat, and amount of moisture in the air, as shown in the daily weather maps. Later these studies should lead to the making of weather maps from the data furnished by the daily papers, and to local prediction of weather changes based on the student's own observation.

(f) Studies of the climate of various countries compared with our own, the necessary data being derived from such topographic, rainfall, wind, current, and temperature maps as are found in Sydow-Wagner's or Longman's atlases.

26. **PHYSIOLOGY.**—For one-half unit: The anatomy, histology, and physiology of the human body and the essentials of hygiene, taught with the aid of charts and models to the extent shown in Martin's Human Body (Briefer Course). For more than one-half unit, the course must include practical laboratory work.

27. **SPANISH.**—*First Year's Work.*—Elementary grammar, including thorough drill in the irregular verbs; careful training in pronunciation, and translation of simple Spanish when spoken; reading of about 100 pages of easy prose; simple composition and dictation.

Second Year's Work.—In addition to the foregoing, about 300 pages of modern prose; elementary syntax; dictation, composition, and translation of spoken Spanish continued.

28. **TRIGONOMETRY.**—The work should cover the field of plane trigonometry, as given in standard text-books, including the solution of right and oblique triangles. Special emphasis is placed upon the solution of practical problems, trigonometric identities, and trigonometric equations.

29. **ZOOLOGY.**—The instruction must include laboratory work equivalent to four periods a week for a half-year, besides the time required for text-book and recitation work. Note-books and drawings must be presented to show the character of work done and the types of animals studied. The drawings are to be made from the objects themselves, not copied from illustrations, and the notes are to be a record of the student's own observations of the animals examined. The amount of equipment and the character of the surroundings must, of course, determine the nature of the work done and the kind of animals studied; but in any case the student should have at least a fairly accurate knowledge of the external anatomy of each of eight or ten animals distributed among several larger divisions of the animal kingdom, and should know something of their life histories and of their more obvious adaptations to environment. It is recommended that special attention be given to such facts as can be gained from a careful study of the living animal. The names of the largest divisions of the animal kingdom, with their most important distinguishing characters, and with illustrative examples selected, when practicable, from familiar forms, ought also to be known.

GRADUATION---FIRST DEGREES

THE BACHELOR'S DEGREE

A bachelor's degree is conferred upon any student who satisfactorily completes the course of study described under one of the various colleges and schools, doing either the first three years, or the last year, of his work in residence at the University.

Residence Requirement

If the student is in residence at the University for one year only, that year's work must be taken in the college from which the degree is expected. No person will be recommended for a degree by the faculty of any college in the University unless he has been a regularly registered student in that college for at least one year.

Requirements for Graduation

A candidate for a bachelor's degree must pass in the subjects marked *prescribed* in his chosen course, and must conform to the directions given in connection with that course in regard to electives. In the College of Liberal Arts and Sciences and the College of Agriculture, credit for 130 hours is required for graduation. In the College of Engineering, in the College of Law, in the Library School, and in the School of Music, the candidate must complete the course of study as laid down.

Military Science and Physical Training

The number of hours required includes, for men, five in military drill and tactics and two in physical training; and for women, three in physical training. Men excused from the military requirements, and women who do not take the course in physical training, must elect instead an equivalent number of hours in other subjects.

Thesis

In all cases in which a thesis is required*, the subject must be announced not later than the first Monday in November, and the completed thesis must be submitted to the dean of the proper college by June 1. The work must be done under the direction of the professor in whose department the subject belongs, and must be in the line of the course of study for which a degree is expected. The thesis must be presented upon regulation paper; it is deposited in the library of the University.

Second Bachelor's Degree

A student who has already received one bachelor's degree may receive a second bachelor's degree, provided that all specified requirements for both

*See requirements for graduation in the various colleges.

degrees be fully met, and provided also that the course offered for the second degree include at least 30 semester hours not counted for the first degree.

LIST OF FIRST DEGREES

1. The degree of BACHELOR OF ARTS is conferred on those who complete a course in literature and arts, or certain courses in science, in the College of Liberal Arts and Sciences.

2. The degree of BACHELOR OF SCIENCE is conferred on those who complete a course in the College of Engineering or in the College of Agriculture. This degree is conferred on a graduate of the College of Liberal Arts and Sciences who completes a course in ceramics or in chemistry and may be conferred on graduates from other courses in this College on recommendation of the faculty.

3. The degree of BACHELOR OF LAWS is conferred on those who complete the course in the College of Law.

4. The degree of DOCTOR OF LAW is conferred on those who complete the course in the College of Law, satisfying certain special requirements additional to those for the degree of Bachelor of Laws.

5. The degree of BACHELOR OF LIBRARY SCIENCE is conferred on those who complete the course in the Library School.

6. The degree of BACHELOR OF MUSIC is conferred on those who complete one of the courses in the School of Music.

7. The degree of DOCTOR OF MEDICINE is conferred on those who complete the course in the College of Medicine.

8. The degree of DOCTOR OF DENTAL SURGERY is conferred on those who complete the course in the College of Dentistry.

9, 10. The degree of GRADUATE IN PHARMACY, or of PHARMACEUTICAL CHEMIST, is conferred on those who complete the shorter and the longer courses, respectively, in the School of Pharmacy.

HONORS AND COMPETITIONS

UNIVERSITY HONORS

The University gives public official recognition to such students as attain a high grade of scholarship by the following system of honors:

Preliminary Honors are assigned at the completion of the sophomore year on the basis of the average of the grades received during the freshman and sophomore years in all studies except military and physical training. The number of persons to whom honors are awarded may not exceed one-tenth of the membership of the sophomore class. A failure in any subject disqualifies a student from receiving these honors. Preliminary Honors afford an opportunity for sophomores to secure recognition for high scholarship without waiting for graduation.

Final Honors are assigned on graduation on the basis of the average grades received during the junior and senior years, in all the undergraduate colleges and schools of the University with the exception of those students in the College of Liberal Arts and Sciences, who are completing their courses according to the requirements of the former College of Literature and Arts, who may receive *Honors on Graduation*. The rules for conferring *honors on graduation* are stated on pages 149 and 150. The number of persons to whom final honors are awarded may not exceed one-tenth of the membership of the senior class. A failure in any subject during the junior and senior years disqualifies a student from receiving these honors. Final honors are designed especially to favor students whose preparatory education has been so imperfect as to prevent them from receiving preliminary honors.

Special Honors are awarded at the close of the senior year. No student may receive such honors who has not completed, before the beginning of his senior year, at least twenty hours' work in the subject, or group of allied subjects, in which the honors are proposed; he must complete thirty hours' work in the same subject, or group of allied subjects, by the end of his senior year, must do such other work as the professor in charge may assign, and must prepare an acceptable thesis. No student is eligible for special honors who, during the senior year, has received a grade of less than eighty per cent. in any subject. Special honors are planned for especially brilliant students who prefer to concentrate their efforts upon a special course. A student may be a recipient of both final and special honors.

The names of students receiving honors are published in the Annual Register of the University. (See Part VI.)

DEBATING AND ORATORY

The University engages yearly in four intercollegiate debates, the teams for which are chosen in a series of competitive preliminaries to which all students are eligible. Through the generosity of Hon. William B. McKinley a gold

watch-fob is presented to every speaker who represents the University, either in debate or in oratory.

THE CENTRAL DEBATING CIRCUIT OF AMERICA is an association formed by the universities of Illinois, Iowa, Minnesota, Nebraska, and Wisconsin. It holds a debate at each university on the Friday evening following the Thanksgiving recess.

THE STATE UNIVERSITY DEBATING LEAGUE consists of the state universities of Illinois, Indiana, and Ohio. Under its auspices three debates are held upon the second Friday in March, each university sending out an affirmative and a negative team.

THE NORTHERN ORATORICAL LEAGUE, consisting of Northwestern University, Oberlin College, and the state universities of Illinois, Iowa, Michigan, Minnesota, and Wisconsin, holds an annual contest on the first Friday evening in May. The contest for 1915 will be held on May 7, at the State University of Iowa, at Iowa City. The winner receives the Lowden testimonial of one hundred dollars, and the speaker awarded second place, fifty dollars. The Illinois representative is selected in competitive contests open to all undergraduates.

THE INTERCOLLEGIATE PEACE ASSOCIATION holds annual state and inter-state oratorical contests to which representatives of this University are eligible. Orations must be upon some phase of the peace question. Cash prizes are offered in both contests.

A FRESHMAN-SOPHOMORE DEBATE and an INTER-SOCIETY DECLAMATION CONTEST are held yearly.

The names of students who represented the University in debate and oratory in 1913-14 are given in the list of honors at the end of this volume.

The Interscholastic Oratorical Prize

A medal of the value of twenty dollars, and two medals of the value of ten dollars each, are offered annually by the University to the high schools of the State for the best orations delivered in a competitive contest between their representatives. This contest takes place in the spring at the time of the interscholastic athletic meet—in 1915, on May 14.

THE BRYAN PRIZE

In 1898 Mr. William Jennings Bryan gave to the University the sum of two hundred fifty dollars, from the interest on which a prize of twenty-five dollars is offered biennially for the best essay on the science of government. The contest is open to all matriculated undergraduate students. The essays may not be less than three thousand, nor more than six thousand words in length, and must be left at the President's office not later than the second Wednesday in May. The prize was offered for the first time in 1901. It will be offered next in 1915.

B'NAI B'RITH PRIZES

The Champaign and Urbana lodge of the Independent Order of B'nai B'rith has donated to the University the sum of fifty dollars, to be awarded in prizes to students of the University for essays on Jewish subjects. The sum named is the second of five annual contributions to be given for this purpose. For information in regard to the conditions governing the award of the prizes, address the Registrar, University of Illinois, Urbana, Illinois.

ARCHITECTURE

The Francis J. Plym Fellowship in Architecture

By the generosity of Mr. Francis J. Plym, of Niles, Michigan, a graduate of the University of Illinois of the class of 1897, the Trustees have been enabled to establish a fellowship for the advanced study of architecture. The stipend attached to this fellowship is \$1,000, awarded annually by competition in Architectural Design. The holder of the fellowship is required to spend a year in study and travel abroad. For further information address the Department of Architecture.

The Joseph C. Llewellyn Prize in Architectural Engineering

In June, 1913, Mr. Joseph C. Llewellyn, of Chicago, a graduate of the University of the class of 1877, established, for a period of four years, a prize of fifty dollars per annum for a problem in design, the competition being limited to students in architectural engineering.

THE PRIZE IN ARCHITECTURE of the American Academy in Rome is open for competition among qualified undergraduates and graduates of certain American architectural schools, including that of the University of Illinois. This prize grants three years of residence and travel abroad for the study of classic and renaissance architecture.

MILITARY CONTESTS AND PRIZES

The University Bronze Medals

Bronze medals typical of the University and its Military Department are awarded by the University to the members of the infantry companies and artillery and signal detachments which shall score the greatest number of points at the annual competitive drill, held at some time between May 15 and May 31. The members of the company rifle team making the highest score at gallery target practise are also awarded medals. The medals so awarded become the permanent property of the recipients. A complete roster of the winning organizations is published in the Annual Register of the University for the following year. (See Part VI.)

The University Gold Medal

The Board of Trustees provides annually a gold medal which is to be awarded, at the annual competitive drill held near the close of the year, to the best drilled student, whose property the medal becomes. Each student must have matriculated in the University and must have completed one semester's work in Military 1 with a grade of not less than 90, and three semesters' work in Military 2 with a grade of not less than 95; and he must have an average standing of not less than 85 per cent in all of his other studies for the preceding semester, which standing shall be determined by the Registrar. The name of the winner is published in the Annual Register of the University for the following year. The reward is made for excellence in the same details as in the Hazelton contest.

The Hazelton Prize Medal

Captain W. C. Hazelton provided in 1890 a medal, which is awarded, at a competitive drill held at some time between May 15 and May 31, to the

best drilled student. Each competitor must have been in attendance at the University at least sixteen weeks of the current college year; must have had less than five unexcused absences from drill; and must present himself for competition in full uniform.

The award is made for excellence in:

1. Erectness of carriage, military appearance, and neatness
2. Execution of the school of the soldier, without arms
3. Manual of arms, with and without numbers

The name of the successful competitor is published in the Annual Register of the University for the following year. He is given a certificate setting forth the fact, and may wear the medal until the fifteenth day of the May following, when he must return it for the next competition.

LECTURES AND OTHER GENERAL EXERCISES

A part of the instruction afforded by the University to its students is given through the medium of lectures by distinguished men and women from outside the University faculty and by means of exhibitions, recitals, and other exercises distinct from the regular courses of instruction. A partial list of these exercises for the calendar year 1914 follows. Lectures by members of the University faculty are excluded from this list.

GENERAL UNIVERSITY EXERCISES

Convocations

- Feb. 22. UNIVERSITY CONVOCATION: Address by Dean DAVID KINLEY.
April 30. UNIVERSITY CONVOCATION: Address by Dr. CHARLES R. BROWN, Dean of Yale Divinity School.
June 16. GREGORY MEMORIAL EXERCISES: Addresses by Dr. EDMUND J. JAMES, President of the University; Mr. WILLIAM E. PRAEGER, Professor of Biology, Kalamazoo College; Dr. MARTIN L. D'OOGHE, Professor *Emeritus* of Greek, University of Michigan; Hon. HENRY M. BEARDSLEY, Attorney, former mayor of Kansas City, Missouri.
Sept. 23. ANNUAL CONVOCATION FOR FRESHMEN.
Oct. 20. UNIVERSITY CONVOCATION: Addresses by members of the faculty.
Dec. 3. UNIVERSITY CONVOCATION: Illinois Day address by Dr. EDMUND J. JAMES, President of the University.

University Exchange Lectures

- April 14, 17, 21, 22, 24. Dr. SHOSUKE SATO, President, College of Agriculture, North Eastern Imperial University of Japan, and Japanese Exchange Lecturer for 1914: "Social Reforms and Changes Since the Restoration" (Illustrated), "The Old Feudalism and the New Imperialism", "Local Autonomy and Constitutional Government", "The Educational System and Religious Movements", "Agricultural Credit and Rural Sociology".

General University Lectures

- April 23. Dr. GEORGINA SWEET, Lecturer on Biology, University of Melbourne: "Australia and Its Universities" (under the auspices of the department of zoology).
April 27-May 1. Mr. I. B. STOUGHTON HOLBORN, Merton College, Oxford, England: "The Philosophy of the Beautiful", "Gothic Architecture".
May 2. Dr. DAVID PHILIPSON, Rabbi, Cincinnati, Ohio: "Fundamental Jewish Social Concepts" (under the auspices of the Menorah Society).
May 3. Mr. I. B. STOUGHTON HOLBORN, Merton College, Oxford, England: "The Open Space Movement".
June 14. Rev. CHARLES M. STUART, President, Garrett Biblical Institute, Northwestern University: Baccalaureate Address.

- June 15. Hon. EDWARD McDERMOTT, Lt.-Governor of Kentucky: "Eternal Public Problems" (under the auspices of Phi Beta Kappa and Sigma Xi).
- June 17. His Excellency, Count JOHANN VON BERNSTORFF, Imperial German Ambassador to the United States: Address at the Forty-third Annual Commencement Exercises.
- Nov. 15. Mr. ISAIAH L. SHARFMAN, Junior Professor of Political Economy, University of Michigan: "Jewish Ideals" (under the auspices of Menorah Society).
- Dec. 7. Dr. A. A. NEWMAN, Dropsie College, Philadelphia: "Jewish Social Life in Medieval Spain" (under the auspices of the Menorah Society).

Lectures Under the Auspices of the University Christian Associations

- Jan. 18. Mr. DAVID C. CALDWELL, Principal, Louisville Manual Training High School: "Winston Churchill's 'The Inside of the Cup'".
- Jan. 25. Mr. J. A. BROWNE, Manufacturer, North Manchester, Indiana: "Ethics of Some Tragic Characters of Shakespeare".
- March 15. Dr. WINFIELD S. HALL, Professor of Physiology, Northwestern University School of Medicine: "Eugenics".
- April 5. Dr. SHAILER MATHEWS, Dean of the Divinity School, University of Chicago: "Militant Idealism".
- April 6-10. LENTEN SERVICES: Sermons by pastors of the Twin Cities.
- Oct. 4. Dr. WINFIELD S. HALL, Professor of Physiology, Northwestern University School of Medicine: "Social Problems and Sex Hygiene" (three lectures).
- Dec. 17-20. Dr. FRANCIS J. McCONNELL, Bishop of the Methodist Episcopal Church, Denver, Colorado: "Religious Certainty".

The Annual Bondurant Bible Lectures

- March 16-20. Dr. GEORGE H. COMBS, Independence Boulevard Church, Kansas City, Missouri: "The Christ in Modern English Literature", "The Christ and the Social Problem", "The Christ and Our Native Land", "The Christ and the Hope of an Endless Life", "The Christ and the World's Great Questions".

The Illinois Farmers' Hall of Fame

- Jan. 28. UNVEILING OF THE PORTRAIT OF MR. PHILIP D. ARMOUR.

The Illinois Municipal League

- Oct. 15. Mr. L. D. UPSON, Bureau of Municipal Research, Dayton, Ohio: "The City Manager Plan"; Mr. WALTER A. SHAW, State Public Utilities Commission: "The Public Utilities Commission"; Mr. MONTAGUE FERRY, Commissioner of Public Services: "The Chicago Department of Public Service". (Other addresses by members of the faculty of the University of Illinois).

Woman's League Vocational Conference

- March 27-28. Miss HELEN M. BENNETT, Manager, Chicago Collegiate Bureau of Occupations: "Opportunities for Women in Journalism"; Miss KATHERINE ALVORD, Mistress of Chadbourne Hall, University of Wisconsin: "Opportunities for Women in Public Service"; Miss S. P. BRECKENRIDGE, Chicago School of Civics and Philanthropy: "Opportunities for Women in Social Work"; Miss MAUDE RAYMOND, District Secretary, Y. W. C. A.:

"Opportunities for Women in Y. W. C. A. Work". (Addresses were also given by members of the faculty).

The Star Lecture Course

- Jan. 9. THE BEN GREET PLAYERS.
- Jan. 27. Mr. WILLIAM J. BURNS, Private Detective.
- March 20. Madame SCHUMANN-HEINK.
- April 24. KRYELL'S BAND.
- Oct. 21. Madame LOUISE HOMER.
- Dec. 1. Hon. ROBERT M. LA FOLLETTE.

Exhibitions

- Jan. 13-29. ART EXHIBIT. A collection of seventy original paintings by prominent American artists, exhibited by the department of art and design.
- Jan. 26-31. HOUSEHOLD SCIENCE EXHIBIT. Exhibit of books on household science.
- April 20-May 1. ARCHITECTURAL EXHIBITION. Mr. EDGAR I. WILLIAMS: Restorations and water colors which won the competition for the Fellowship in the American Academy at Rome.
- April 26. FLORAL DECORATION AND LANDSCAPE DESIGN, JOINT EXHIBITION. Held by the classes in floral decoration and landscape design.
- May 12-16. ARCHITECTURAL EXHIBITION. Drawings from the departments of Architecture of Carnegie Institute of Technology, Cornell, Harvard, McGill, Pennsylvania, Syracuse, and Illinois, submitted in the interscholastic competition.
- May 14-16. PUBLIC SCHOOL ART EXHIBIT.
- May 18-20. ARCHITECTURAL EXHIBITION. Work done by students in the department of architecture.
- May 26-28. ARCHITECTURAL EXHIBITION. Drawings submitted by the seniors of the department of architecture for the Northwestern Terra Cotta Prize.
- Oct. 10-15. ARCHITECTURAL EXHIBITION. Mr. MAX A. MONTGOMERY, Plym Fellow for the year 1913-14: Exhibition of envois and sketches which won the competition for the Fellowship. The drawings submitted in the final competition to decide the Plym Fellow for the year 1914-15 were also exhibited.
- Oct. 23. MECHANICAL ENGINEERING EXHIBIT. A comprehensive exhibit of the work of the department of mechanical engineering held under the auspices of Student Branch of the American Society of Mechanical Engineers.
- Nov. 12-14. ARCHITECTURAL EXHIBITION. The best work done by the students in the department of Architecture.
- Nov. 13-15. CHRYSANTHEMUM SHOW.
- Nov. 20-24. ARCHITECTURAL EXHIBITION. Work by freshmen in the department of architecture. Held in connection with the High School Conference.
- Dec. 15-17. FRUIT EXHIBIT. Held in connection with the fifty-ninth annual convention of the Illinois Horticultural Society.

Entertainments

- Jan. 16-17. PLAYERS' CLUB: "London Assurance", a comedy by Dion L. Boucicault.
- Feb. 17. UNIVERSITY ORCHESTRAL CONCERT: The St. Louis Symphony Orchestra, conducted by Max Zach.

- Feb. 23. THE FLONZALEY STRING QUARTET (under the auspices of the School of Music).
- March 28. MASK AND BAUBLE: "Higher Up", by Mr. T. H. Guild.
- May 7. UNIVERSITY ORCHESTRAL CONCERT: "The Minneapolis Symphony Orchestra, conducted by Emil Oberhoffer.
- May 9. PLAYERS' CLUB: Two one-act plays, "The Portrait" and "Ryland".
- May 14. MAY-DAY FESTIVAL AND GIRLS' STUNT SHOW.
- May 15. INTERSCHOLASTIC ORATORICAL CONTEST.
- May 16. INTERSCHOLASTIC CIRCUS.
- May 23. HINDU NIGHT, HINDUSTANI STUDENTS' ASSOCIATION.
- Nov. 14-15. MASK AND BAUBLE: "Our Wives".
- Nov. 23. UNIVERSITY ORCHESTRAL CONCERT: The St. Louis Symphony Orchestra, conducted by Max Zach.
- Dec. 2. Mr. CHARLES HEINROTH, Carnegie Institute, Pittsburg, Pennsylvania: Organ Recital. Dedication of Pipe Organ in the University Auditorium.
- Dec. 15. ANNUAL CONCERT, CHORAL AND ORCHESTRAL SOCIETY: "The Messiah".
- Dec. 18-19. PLAYERS' CLUB: Two plays by Thacher H. Guild, "The Power of a God", "The Higher Good".

THE COLLEGE OF LIBERAL ARTS AND SCIENCES

Anthropology

- Nov. 8-13. Dr. FELIX VON LUSCHAN, Professor of Anthropology and Director of the Anthropological Institute of the University of Berlin: "Excavations of a Hittite Capital", "Anthropology of Western Asia", "Culture and Degeneration," "Convergency or Transport and Migration".

Astronomy

- April 2. Dr. JOHN A. BRASHEAR, Manufacturer of Astronomical and Physical Instruments, Pittsburgh, Pennsylvania: "The Contribution of Photography to Our Knowledge of the Stellar Universe".

Botany

- April 24. Dr. AMON B. FLOWMAN, Professor of Biology, Carroll College: "Studies on Negundo" (illustrated).
- Nov. 9-13. Dr. JOHANNA WESTERDIJK, Willie Comnelin Scholten Phylopathological Laboratory, Amsterdam, Holland: "Tropical Plant Diseases", "Potato Vine Diseases", "Potato Tuber Diseases", "Fruit Diseases in Europe and America", "Some Problems in Plant Pathology and Methods of Meeting Them".

Business Administration

- April 3. INSURANCE CONFERENCE. Mr. COURTNEY BARBER, General Agent, Equitable Life Assurance Society; Mr. ISAAC M. HAMILTON, President, Federal Life Insurance Company; Hon. RUFUS M. POTTS, Insurance Superintendent; Dr. WILLIAM F. GEPHART, Professor of Economics, Washington University: Papers upon the general subject of "Life Insurance and Its Educational Relations". Presentation to the University of a portrait of the late ALONZO WESTON KIMBALL, of the Northwestern Mutual Life Insurance Company.

Ceramics

Jan. 12-25. INDUSTRIAL COURSE IN CERAMICS. Lectures, laboratory work, practise in firing kilns, and discussions under the direction of Professor ALBERT V. BLEININGER, of the U. S. Bureau of Standards and Mr. R. T. STULL, Acting Director of the Courses in Ceramics.

Chemistry

Jan. 12-16. Dr. KARL WILHELM WOLFGANG OSTWALD, Privat-Dozent, University of Leipzig: "What Are Colloids? Qualitative Colloid Analysis; Formation and Preparations of Colloids", "Mechanical, Optical, Electrical, and Chemical Properties of Substances in the Colloid State; Classification of the Colloids", "Changes in the Colloid State; Internal Changes of State, Smelling, Setting, Syneresis, Adsorption, Coagulation, Peptization," "General Survey of Colloid Chemistry", "Scientific Applications of Colloid Chemistry", "Technical Applications of Colloid Chemistry".

March 9-11. ANNUAL MEETING, ILLINOIS WATER SUPPLY ASSOCIATION. Addresses by prominent members of the Association.

April 21. Dr. C. A. KRAUS, Research Laboratory of Physical Chemistry, Massachusetts Institute of Technology: "Solutions in Liquid Anhydrous Ammonia" (before the University of Illinois section of the American Chemical Society).

May 18. Dr. IRA REMSEN, President, Johns Hopkins University: "Personal Reminiscences of Leibig and Woehler" (under the auspices of Phi Lambda Upsilon).

Nov. 17. Mr. WILLIAM HOSKINS, of Mariner and Hoskins, Chemical Engineers, Chicago: "The Methods Used and Some of the Results of the Recent Investigation of the Atmosphere of Chicago" (illustrated).

Education

Jan. 12-15. Mr. E. J. GOULD, Lecturer and Demonstrator for the Moral Education League of London: A series of four lectures and demonstrations with a class of sixteen school-children between 11 and 13 years of age on the general subject of "Moral Education".

Feb. 16. Mr. C. S. MEEK, Superintendent of City Schools, Boise, Idaho: Two lectures.

May 5-8. Dr. J. J. FINDLAY, University of Manchester, England: "Labor and Learning", "The Pursuits of Children at School", "History and Drama", "The Corporate Life of the School".

English

Oct. 27. Mr. A. LANCELOT ARTUS, Author and Lecturer, London, England: "Hamlet, the Man of Genius".

Nov. 3-March 9. INFORMAL READINGS. Weekly reading hours, conducted by members of the department of English.

Nov. 4-5. Mr. CHARLES J. WOODBERRY, Author and Lecturer: "Emerson With His Friends", "Himself".

Entomology

Oct. 14. Dr. J. M. ALDRICH, U. S. Bureau of Entomology: "Western Salt Lakes and Their Inhabitants".

Geology

- Jan. 10. Dr. ULYSSES S. GRANT, Professor of Geology, Northwestern University: "Alaska".
- Jan. 17. A LECTURE by a representative of the Great Northern Railroad: "The New Glacier National Park".

German

- Nov. 2. Dr. EUGEN KUEHNEMANN, Breslau, Germany: "Deutschland und die Heutige Weltlager" (under the auspices of the Deutscher Verein).

Household Science

- Nov. 21. Miss EAST, Household Science Supervisor, Philippine Islands: "Personal Experiences During My Work in the Philippines" (before students in the department of household science).

Mathematics

- Jan. 16. Dr. ROBERT D. CARMICHAEL, Associate Professor of Mathematics, Indiana University: "Convergence of a Special Class of Infinite Series" (before the Mathematical Society).

Sociology

- April 27. Mr. F. EMORY LYON, Secretary Central Howard Association: "The Care of Discharged Prisoners and of Prisoners' Families".

Zoology

- Feb. 27. Dr. FRANK R. LILLIE, Professor of Embryology, University of Chicago, and Director of the Marine Biological Laboratory, Woods Hole, Massachusetts: "The Marine Biological Laboratory and Its Importance in the Training of Research Students in Biology" (illustrated).
- May 25. Mr. HENRY OLDYS, Lecturer, Writer, Bird Musician: "Birds and Bird Music".
- Nov. 4. Dr. WILLIAM E. RITTER, Professor of Zoology, University of California, and Director of the Scripps Institution for Biological Research: "The Work of the La Jolla Station" (before the graduate students and faculty in zoology).

THE COLLEGE OF ENGINEERING

College Assemblies

- Jan. 13. Mr. FRANCIS S. PEABODY, President, Peabody Coal Company, Chicago: "The Mining and Utilization of Illinois Coal".
- Jan. 22. Mr. LEWIS ROWELL, Assistant Professor of Electrical Engineering, Purdue University: "The Modern Battleship".
- Jan. 26. Mr. GEORGE WHIPPLE, Professor of Sanitary Engineering, Harvard University: "Sewage Disposal", "Relative Values in Sanitation".
- Feb. 11. Mr. E. J. MEHREN, Editor, *Engineering Record*, New York City: "The Making of a Technical Magazine".
- Feb. 27. Mr. J. H. PRIOR, Engineer of Design, Chicago, Milwaukee and St. Paul Railway, Chicago: "How to Get Your First Job and Your Second One".
- March 24. Mr. FRED H. RINDGE, Secretary, Industrial Service Movement, Y. M. C. A., New York City: "Relation of the Engineer to Foreign Labor".
- March 26. Mr. STEPHEN W. GILMAN, Professor of Business Administration,

University of Wisconsin: "Practical Questions for Determination in Advance of Entering Into Business".

March 27. Mr. T. H. ALDRICH, Supervising Engineer, National X-Ray Company, Chicago: "Indirect Lighting Systems".

April 3. Dr. JOHN A. BRASHEAR, Manufacturer of Astronomical and Physical Instruments, Pittsburgh, Pennsylvania: "The Construction of Large Telescopes".

April 30. Mr. J. D. M. HAMILTON, Claims Attorney, Santa Fe System, Topeka, Kansas: "Safety First".

May 6. Mr. JOHN H. WALKER, President Illinois Federation of Labor, Springfield: "Collective Bargaining Between Employer and Employee".

May 11. Mr. B. F. BART, The National Tube Company, Chicago: "The Manufacturer of Steel Pipe".

Dec. 7. Mr. WILLARD BEAHAN, First Assistant Engineer, Lake Shore and Michigan Southern Railroad, Cleveland, Ohio: "The Engineering of Men".

Addresses Before the Freshman Class

April 8. Mr. FULLERTON FULTON, Superior Coal Company, Gillespie, Illinois: "First Aid to the Injured".

Architecture

March 20. Mr. WILLIAM JONES SMITH, Architect, Chicago: "The Character of Various Types of Buildings in the United States".

Civil Engineering

Jan. 19-31. TWO-WEEKS COURSE IN HIGHWAY ENGINEERING. Lectures and discussions by prominent highway engineers, with exhibits and demonstrations of road machinery.

Dec. 12. Mr. ALFRED NORBURG, Civil Engineer: "Frisco Harbor Construction" (before the C. E. Society).

Electrical Engineering

Feb. 14. Mr. F. H. MILLENER, Experimental Engineer, Union Pacific Railroad, Omaha, Nebraska: "Light Waves, Visible and Invisible".

March 27. Mr. T. H. ALDRICH, Supervising Engineer, National X-Ray Company, Chicago: "Interior Illumination".

Mechanical Engineering

April 16. Mr. A. KOEHLER, of The B. F. Goodrich Company, Akron, Ohio: "The Manufacture of Rubber".

Mining Engineering

Jan. 13. Mr. F. S. PEABODY, President, Peabody Coal Company, Chicago: "Coal Mining in Illinois" (illustrated with motion pictures).

Feb. 4. Mr. A. J. ROSSBACH, Sullivan Machinery Company, St. Louis, Missouri: "Coal Cutting Machines and Rock Drills".

Feb. 24. Mr. BRADLEY STOUGHTON, Secretary, American Institute of Mining Engineers, New York City: "Notes on the Metallurgy of Steel".

March 13. Mr. THOMAS D. HALL, Ladybrand, South Africa: "Mining Conditions in South Africa".

April 18. Mr. A. N. WINCHELL, Professor of Mineralogy, University of Wisconsin: "Geology and Mining of the Butte District".

May 5. Mr. L. C. HODSON, Assistant Professor of Mining, Iowa State College: "Mining in the Lake Superior Region".

May 6. Mr. JOHN H. WALKER, President, Illinois Federation of Labor: "Co-operative Bargaining in the Mining Industry".

Physics

Dec. 9. Dr. A. G. WORTHING, Cleveland, Ohio: "Optical Pyrametry" (before the Physics Colloquium).

Railway Engineering

Feb. 20. Mr. G. E. JACQUET, Urbana: "Some Experiences With an Eastern Railway".

March 27. Mr. R. S. ZEITLER, Urbana: "Self-Propelled Railway Cars".

THE COLLEGE OF AGRICULTURE

Agricultural Extension

(Addresses before the Corn Growers' and Stockmen's Convention.)

Jan. 19. Mr. GEORGE O. SHIELDS, President, League of American Sportsmen: "Wild Animals and Birds"; "Timber That Grows at Timber Line" (illustrated).

Jan. 20. Mr. CHARLES ROURKE, President, Urbana Commercial Club: "Progress in Business Methods".

Jan. 21. Mr. FRANK STOCKDALE, International Harvester Company: "The Dawn of Plenty".

Jan. 22. Mr. B. F. HARRIS, Ex-President, Illinois Bankers' Association: "Application of Business Principles to Farming".

Jan. 23. Mr. WILLIS B. MILLS, McNabb, Illinois: "Corn; Preparation of the Ground and Cultivation".

Jan. 26. Mr. A. J. R. CURTIS, Universal Portland Cement Company: "Concrete and Its Uses on the Farm".

Jan. 26. Reverend M. B. McNUTT, Naperville, Illinois: "The Pastor as a Community Engineer".

Jan. 27. Mr. CHARLES GALPIN, Instructor in Agricultural Economics, University of Wisconsin: "Problems in Agricultural Economics".

Jan. 27. Dr. ROSS L. FINNEY, Professor of Education, Philosophy, Religion and Social Science, Illinois Wesleyan University: "Some Problems of the Country Church".

Jan. 27. Miss MABEL CARNEY, Director of Country School Department, Illinois State Normal University: "The New Country School".

Jan. 28. Dr. G. C. CREELMAN, President, Ontario Agricultural College: "Some Rural Problems".

Jan. 29. Mr. FRED L. HATCH, Spring Grove, Illinois: "Alfalfa".

Jan. 29. Mr. HORACE F. MAJOR, Assistant Professor of Landscape Gardening and Superintendent of Grounds, University of Missouri: "Landscape Gardening for the Farmer".

Jan. 30. Mr. CARL J. ROHRER, Schenectady, New York: "Application of Electricity to Farm Work".

Jan. 30. Mr. FRANK I. MANN, Gilman, Illinois: "Soil Fertility".

(Addresses given in connection with agricultural extension courses 4 and 5.)

Feb. 27. Mr. W. N. RUDD, President, Mt. Greenwood Cemetery Association, Morgan Park, Illinois: "The Grounds and Setting of a House".

- March 6. Mr. CHARLES McLEAN, Dubuque, Iowa: "Problems of Central Marketing".
- March 13. Mr. J. O. FINDLEY, Oneida, Illinois: "Commercial Sheep Feeding".
- March 20. Hon. A. N. ABBOTT, Morrison, Illinois: "The Advances in Agriculture in the Last Fifteen Years".
- April 24. Dr. SHOSUKE SATO, President, College of Agriculture, North Eastern Imperial University of Japan: "Land Tenure Systems of Japan and Great Britain".

Agronomy

- March 24. Mr. A. G. SMITH, U. S. Department of Agriculture, State Leader of County Advisers in Illinois: "The County Agricultural Adviser and His Work".
- April 7. Mr. F. I. MANN, Gilman, Illinois: "Growing Legumes".

Animal Husbandry

- March 5. Mr. CHARLES McLEAN, of the City Market, Dubuque, Iowa: "Municipal Markets".
- March 24. Mr. H. L. HALVERSON, Manager, Farmers' Shipping Association, Litchfield, Minnesota: "Work of the Farmers' Shipping Association".
- March 26. Mr. F. S. BROOKS, General Live Stock Agent, Santa Fe Railway: "Transportation of Live Stock".
- April 2. Mr. J. E. POOLE, *Chicago Live Stock World*: "Organization of the Live Stock Markets".
- April 9. Mr. JAY R. BROWN, *Chicago Farmers' and Drovers' Journal*: "Market Reports and Their Use".
- April 14. Mr. M. J. WRIGHT, Woodstock, Illinois: "Marketing Milk and Its Products".
- May 14. Mr. SIDNEY B. SMITH, Ex-Secretary of the Illinois Live Stock Breeders' Association: "Public Sale Method of Selling Pedigreed Live Stock".
- May 21. Mr. A. J. LOVEJOY, Roscoe, Illinois: "How to Sell Pedigreed Live Stock".
- May 26. Mr. E. C. STONE, *The Swine World*: "Advertising of Pedigreed Live Stock".

Horticulture

- Jan. 23. Mr. THEODORE WIRTH, Superintendent of Parks, Minneapolis, Minnesota: "The Minneapolis Park System".
- Feb. 18. Mr. W. N. RUDD, President, Mt. Greenwood Cemetery Association, Morgan Park, Illinois: "The Value of Landscape Gardening to the Cemetery".
- Feb. 25. Mr. O. C. SIMONDS, Landscape Architect, Chicago: "The Training of a Landscape Architect".
- March 25. Mr. F. N. EVANS, Landscape Architect, Cleveland, Ohio: "The Plants of California".
- April 22. Mr. BREMER W. POND, Landscape Architect, Boston, Massachusetts: "American Country Estates".

Dec. 16-18. Mr. THOMAS BENDELOW, Golf Course Architect: "Selections of Site of Golf Courses," "Laying Out Golf Courses," "The Planting and Landscape Gardening of Golf Courses."

Household Science

Oct. 19. Mrs. FLORENCE KELLEY, General Secretary, National Consumers' League: "History and Progress of the National Consumers' League."

THE COLLEGE OF LAW

May 6. Hon. WALTER J. GRANT, Referee in Bankruptcy, U. S. District of Eastern Illinois: "Troubles of a Referee, and How to Relieve Them".

May 29. Mr. HENRY W. BALLANTINE, Professor of Law, University of Wisconsin: "Proclamations of Martial Law".

Dec. 9-10. Mr. NATHAN W. MACCHESNEY, Senior Member of Law Firm of MacChesney and Becker, Chicago: "Legal Ethics".

THE LIBRARY SCHOOL

Jan. 22-23. Mr. HENRY E. LEGLER, Librarian, Chicago Public Library: "Recent Developments in Legislative and Municipal Reference Work", "Books Our Grandmothers Read", "The Chicago Public Library and the Playground Movement".

April 2-3. Miss MARY E. AHERN, Editor of *Public Libraries*, Chicago: "The Fifth Kingdom and the Keeper of Its Treasures", "The Business of Being a Librarian".

April 7. Miss MAY MASSEE, Editor, *A. L. A. Booklist*: "The Aim of the A. L. A. Booklist".

April 8. Miss HARRIET E. HOWE, Instructor, Western Reserve University Library School: "Special Phases of Training Carried On by the Western Reserve University Library School".

April 16. Mr. CHARLES E. RUSH, Librarian, St. Joseph, Missouri Public Library: "Children's Books and Their Illustrators".

April 24. Miss CARRIE E. SCOTT, Assistant Secretary, Indiana Library Commission: "The Work of the Indiana Library Commission".

April 28. Mr. MATTHEW S. DUDGEON, Director, University of Wisconsin Library School: "The Work of the Wisconsin Library Commission", "Legislative Reference".

Oct. 16-17. Mr. AZARIAH S. ROOT, Librarian and Professor of Bibliography, Oberlin College: "European Libraries", "Bibliography in Colleges".

Oct. 29. Miss LUTIE E. STEARNS, Wisconsin Library Commission: "Some Western Phases of Library Work", "The Library and the Social Survey".

Nov. 13. Mr. JAMES I. WYER, Jr., Director, New York State Library: "Librarianship", "The New York State Library" (illustrated).

Dec. 1. Miss MARY E. HALL, Librarian of the Girls' High School, Brooklyn, New York: "The Opportunity of the High School Library".

THE SCHOOL OF MUSIC

Mr. J. LAWRENCE ERB, Director of the School of Music: Weekly organ recitals. Student and faculty recitals given throughout the year.

*THE SUMMER SESSION, 1914**Lectures and Demonstrations*

June 29. Rev. J. C. BAKER, Pastor, Trinity Methodist Church, Urbana: "Some Books Relating to Religious Problems".

July 6-10. Mr. J. ADAMS PUFFER, Boston, Massachusetts: "Vocational Education".

July 14-17. Dr. PETER ROBERTS, International Secretary, Y. M. C. A., New York City: "Outline of Program for Helping a Community of Foreigners", "Detailed Method of Teaching English to Foreigners", "Requirements in Teachers Teaching Foreigners", "The Foreigner and His Needs" (illustrated), "Ethnic Factors in Immigrants", "How to Start to Work for Foreigners", "The Foreigner As an Asset to Industrial Communities".

July 22. Mr. JOHN R. RICHARDS, Superintendent of Play Grounds, South Park System, Chicago: "Municipal Recreation" (illustrated).

July 27-28. Dr. FRANK C. SHARP, Professor of Philosophy, University of Wisconsin: "Moral Education".

July 30-31. Dr. J. H. KAPLAN, Rabbi, Temple Israel, Terre Haute, Indiana: "Creative Judaism (before the Christian era)".

Convocation

Aug. 7. Hon. FRANCIS G. BLAIR, Superintendent of Public Instruction: Address.

July 31. Dr. LAFAYETTE B. MENDEL, Professor of Physiological Chemistry, Yale University: "Some Recent Advances in Animal Nutrition".

Entertainments

July 18. BEN GREET PLAYERS: "She Stoops to Conquer", "Midsummer Night's Dream".

ASSOCIATIONS, SOCIETIES, AND CLUBS

GENERAL ORGANIZATIONS

The Alumni Association

The Alumni Association is the general organization of the Alumni of the University. The Association maintains an office at the University and publishes two periodicals, the *Alumni Quarterly* and the *Fortnightly Notes*. The alumni of the colleges and schools of the University have formed departmental organizations. Local Alumni Associations have also been organized in many places. (See the Directory of Alumni Associations at the end of this volume.)

University of Illinois Union

The University of Illinois Union is an association of the men of the University, having for its general object the promotion of college spirit and good fellowship. The Union has purchased a house which is open to all university men. All male students are eligible to active membership in the Union; alumni and members of the faculty may become associate members. The Union elects annually a Student Council, consisting of eight seniors and seven juniors, which takes charge of certain student activities.

The Woman's League

The Woman's League was organized to further the spirit of unity among the women of the University and to be a medium for the maintenance of high social standards. The administrative power is vested in an Advisory Board and an Executive Committee composed of representatives from the various women's organizations. Every woman in the University is, by virtue of her registration, a member of the League. The League manages a loan fund, supports a room in the Burnham Hospital, and provides the magazines for the Woman's Building.

Hospital Organization

1. The Students' Mutual Benefit Hospital Fund is a fund made up of contributions from students not otherwise connected with the University.
2. The amount of contribution from each student is \$1.00 a semester.
3. The payment of \$1.00 is due at the opening of each semester, and members are not received later than three weeks after the first day of registration in any semester. Payment confers benefits to the end of the semester in which payment is made.
4. By consent of each member, which consent is acknowledged by the payment of a semester contribution, the fund is paid to the Dean of Men as trustee. This trustee is liable to the members for the proper disbursement of the fund for the purpose for which it is collected, and only to the amount collected.
5. The purpose of the fund is to provide ward hospital care at the rate of \$2.00 a day for members who become ill and need such care for a period of time

not to exceed four weeks during any semester. No payment is made for the expense of a special nurse, or for a physician's bill. The obligation of the trustee is to the contributors to the fund, and not to the hospital. Payment is made only if the beneficiary is in good health when he makes his contribution, and persons paying within the period of the incubation of an infectious disease are not entitled to the benefits of the fund.

6. The trustee has custody of the fund and makes all payments.

7. The trustee reports annually on the operation of the fund, and renders an accounting to the Council of Administration at the first regular meeting of that body in September of each year. The Council of Administration receives this report and asks the Comptroller of the University to audit the accounts for presentation at its first meeting in September; spreads the report upon its records so that the proceedings of the trustee may be permanently preserved, and publishes the essential facts of the annual report in the *Daily Illini*.

Literary Societies

The ADELPHIC, IONIAN, and PHILOMATHEAN societies for men, and the ALETHENAI, ATHENIAN, ILLIOLA, and GREGORIAN societies for women, meet weekly, on Fridays, and the JAMESONIAN on Tuesdays, throughout term time.

The Christian Associations

The present membership of the Young Men's Christian Association is 1,033. The Association building furnishes free, for the use of all students, lounging room and library, parlors, organization rooms for committee meetings, correspondence tables, check room, etc. The building also contains game rooms, bowling alleys, and dormitories to accommodate ninety men. A cafeteria, whose manager is on the pay roll of the Association, serves 450 to 500 persons daily. Religious meetings for men are held occasionally on Sunday afternoon. Thursday evening meetings are addressed by prominent faculty members on ethical topics. Student-led classes in Bible Study are promoted, the teachers receiving training in normal groups. In 1913-14 there were 1,030 men enrolled in voluntary Bible Study. An employment bureau managed by a special secretary, who maintains office hours every afternoon in the Association building, endeavors to help students to find work.

The Y. W. C. A. is housed in Hannah McKinley building. Dormitory space is provided for fifty young women. There are parlors on the first floor for use of the women rooming in the house, a large assembly room, and free use of pianos, organization rooms, and correspondence tables. A bowling alley and modern dining room are in the basement. There are 360 members of the Y. W. C. A. In 1913-14 there were 360 young women enrolled in voluntary Bible Study. An employment bureau is maintained at the Y. W. C. A. to help University women to find employment.

At the opening of the college year the Associations endeavor to help new students to find desirable rooming and boarding places. A copy of the Students' Handbook, giving information about Urbana and Champaign, the University, and the various college organizations and activities will be sent free to prospective students. For this handbook or for further information address the general secretary of either Association.

The Cosmopolitan Club

The Cosmopolitan Club is an organization devoted to the promotion of

social and intellectual intercourse among persons of different nationalities at the University. Public meetings are held in University buildings, to afford the University community information about the customs peculiar to the various countries of the world. The clubhouse on Daniel street affords a home to many foreign students and to a limited number of native students.

Ma-Wan-Da

Ma-Wan-Da is a senior society formed by the consolidation of two former senior societies, Shield and Trident, and Phenix.

HONORARY SOCIETIES

The honorary societies or fraternities named below are private intercollegiate organizations of students and graduates, having for their primary purpose the recognition and encouragement of excellence in scholarship in various departments of study. Election is in all cases made by the societies themselves in accordance with their own rules. The University assumes no responsibility for their elections.

Phi Beta Kappa

Each year a certain number of the ranking students of the senior class in the College of Liberal Arts and Sciences are elected to membership in the Phi Beta Kappa Society. The number is ordinarily limited to one-fifth of the total membership of the graduating class.

The Phi Beta Kappa Prize

Gamma of Illinois chapter of Phi Beta Kappa offers annually a prize of \$25.00 to that member of Gamma Chapter who at his graduation from the College of Liberal Arts and Sciences gives evidence of greatest promise as a scholar in the domain of liberal arts. The award is based on the following considerations: (a) Class room records; (b) other literary and scholarly activities in the University; (c) an essay, which may be a senior thesis or a term paper. At the discretion of the committee in charge, the award may be withheld if none of the essays appears worthy of the prize. Essays submitted in competition and all correspondence with reference to this prize should be addressed to the Secretary of the Phi Beta Kappa Society, University of Illinois.

Sigma Xi

Members of the senior class who give "promise of marked ability" in scientific investigations are eligible to membership in the Sigma Xi Society, which was founded to encourage research in pure and applied science.

Other Honorary Societies

Alpha Chi Sigma (Chemical); Alpha Delta Sigma (Advertising); Alpha Gamma Rho (Agricultural); Alpha Rho Chi (Architectural); Alpha Zeta (Agricultural); Beta Gamma Sigma (Commercial); Delta Sigma Rho (Oratorical); Eta Kappa Nu (Electrical Engineering); Gamma Alpha (Scientific); Kappa Delta Pi (Educational); Order of the Coif (Law); Phi Alpha Delta (Law); Phi Delta Phi (Law); Phi Lambda Upsilon (Chemical); Scabbard and Blade (Military); Scarab (Architectural); Sigma Delta Chi (Journalistic); Sigma Mu Rho (Medical); Sigma Tau (Engineering); Tau Beta Pi (Engineering); Triangle (Civil Engineering); U. L. A. S. (Landscape Architecture).

CLUBS AUXILIARY TO COURSES OF STUDY

In addition to the associations and societies of a general character described above, there are in each college a number of societies and clubs devoted to outside work of a literary, scientific, or technical nature auxiliary to the work of various departments of that college. Among these are the following:

In the COLLEGE OF LIBERAL ARTS AND SCIENCES: The Botanical Club, the Ceramic Club, *le Cercle Francais*, *el Circulo Español*, the Chemical Club, the University of Illinois Section of the American Chemical Society, the Classical Club, the Commercial Club, *der Deutsche Verein*, the English Journal Club, the Geological Journal Club, the History Club, the Mathematical Club, the Oratorical Association, the Pen and Brush Club, the Philological Club, the Political Science Club, the Romance Journal Club, the Scandinavian Club, the Zoological Club.

In the COLLEGE OF ENGINEERING: The Architectural Club, the Civil Engineers' Club, the Electrical Engineering Society, the Urbana Section of the American Institute of Electrical Engineers, the Student Branch of the American Society of Mechanical Engineers, the Student Branch of the American Institute of Mining Engineers, the Physics Colloquium, the Railway Club.

In the COLLEGE OF AGRICULTURE: The Agricultural Club, the Horticultural Club, the Household Science Club, the Landscape Gardeners' Club.

In the SCHOOL OF MUSIC: The University Choral and Orchestral Society, the University Glee and Mandolin Club, the University Military Band.

In the LIBRARY SCHOOL: The Library Club.

FRATERNITIES, SOCIETIES, AND CLUBS

National Fraternities.—Acacia (Masonic); Alpha Delta Phi; Alpha Kappa Psi; Alpha Sigma Phi; Alpha Tau Omega; Beta Theta Pi; Chi Phi; Chi Psi; Delta Kappa Epsilon; Delta Tau Delta; Delta Upsilon; Kappa Sigma; Phi Delta Theta; Phi Gamma Delta; Phi Kappa; Phi Kappa Psi; Phi Kappa Sigma; Phi Sigma Kappa; Psi Upsilon; Sigma Alpha Epsilon; Sigma Chi; Sigma Nu; Sigma Pi; Tau Kappa Epsilon; Theta Delta Chi; Zeta Beta Tau; Zeta Psi.

Sororities.—Achoth (Eastern Star); Alpha Chi Omega; Alpha Delta Pi; Alpha Omicron Pi; Alpha Xi Delta; Chi Omega; Delta Gamma; Gamma Phi Beta; Kappa Alpha Theta; Kappa Kappa Gamma; Phi Beta; Pi Beta Phi; Sigma Kappa.

Local Clubs.—Chi Beta; Chi Delta; Delta Omega; Ilus; Iris; Pi Omicron; Psi Delta.

Interfraternity Organizations.—Men's Pan Hellenic Council; Girls' Pan Hellenic Association; Helmet; Yo Ma; Phi Delta Psi.

OTHER ORGANIZATIONS

Other students' societies include the following: Arkansas Club; Chinese Students' Club; Culver Club; Dixie Club; Easterners' Club; Egyptian Club; H. H. Club; Ivrim; Kansas Club; Komenian Society; Lambkins' Club (Interfraternity Dramatic); Lincoln League; Mask and Bauble (Dramatic); Motorcycle Club; Scribblers' Club; Sewanee Circle; Shomeez (Interfraternity Missouri Club).

UNDERGRADUATE SCHOLARSHIPS

(For circulars giving more detailed information concerning these scholarships, apply to the Registrar of the University.)

COUNTY SCHOLARSHIPS

A law passed by the General Assembly of the State of Illinois at the session of 1905 and embodied in the General School Law of 1909 provides that one scholarship may be awarded annually to each county of the State. The holder thereof must be at least sixteen years of age, and a resident of the county to which he is accredited. No student who has attended the University of Illinois is eligible for a scholarship. The holder of a scholarship is relieved of payment of the matriculation fee (\$10.00, payable once, upon entrance) and incidental fees for four years (\$24.00 a year) in any department of the University other than the professional schools. The term "professional schools," as here used, includes the College of Law, the Library School, the College of Medicine, the College of Dentistry, and the School of Pharmacy.

A competitive examination, under the direction of the President of the University, and upon such branches of study as the President may select, is held, upon the first Saturday in June of each year, at the county court house in each county by the County Superintendent of Schools. Questions for the examinations are furnished in advance to the County Superintendents.

The successful candidates in the examinations must then meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class, and must register the following September.

In case the scholarship in any county is not claimed by a resident of that county, the President of the University may fill the same by assigning to that county from some other county the student found to possess the next highest qualifications.

A student holding a scholarship who shall make it appear to the satisfaction of the President of the University that he requires leave of absence for the purpose of earning funds to defray his expenses while in attendance, may, in the discretion of the President, be granted such a leave of absence, and may be allowed an extension of his scholarship for not more than two years (making not more than six years in all from the beginning of the scholarship). Such extension will not be granted unless the student has been in attendance at the University for at least one full semester, nor unless the student's average grade during the period of his attendance has been at least 80 per cent, exclusive of grades in military science and physical training.

GENERAL ASSEMBLY SCHOLARSHIPS

The same act by which the county scholarships described above were established also provides that each member of the General Assembly may nominate

annually one eligible person from his district for a scholarship in the University, granting the same privileges as the county scholarships.

A member of the General Assembly who wishes to nominate a candidate for a scholarship should file the name and address of his nominee as early in the spring as practicable and not later than June 1, with the President of the University and also with the County Superintendent of the county in which the nominee resides.

The nominee is then required, under the statute, (1) to pass the scholarship examination—the same that is given to competitors for the county scholarships on the first Saturday in June, under the County Superintendent; (2) to meet in full, either by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class; and (3) to register in the University the following September.

If a nominee fails to make a passing grade (70) in the scholarship examination he may not receive the scholarship. In this case notice will be sent to the member of the General Assembly who made the nomination, who is then entitled to nominate a second candidate. This second candidate is subject to all the requirements stated above; the scholarship examination will be given him at the University on the Wednesday preceding the fall registration days (in 1915, September 15).

A General Assembly scholarship may be extended under the same conditions as a county scholarship.

SCHOLARSHIPS IN CERAMICS

The University offers annually to each county in the State one scholarship, awarded by the Trustees of the University, upon the nomination of the Illinois Clay Workers' Association, to applicants who intend to pursue either of the courses in ceramics (Ceramics, and Ceramic Engineering). These scholarships are good for four years and relieve the student from the payment of the matriculation fee (\$10.00, payable once, upon entrance) and the incidental fees (\$24.00 a year).

The candidate must be at least sixteen years of age, must be a resident of the county for which he is nominated, and must meet *in full, before entering*, by certificate from an accredited high school or by passing entrance examinations at the University, the requirements for admission to the freshman class.

SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

The University offers every year to each county in the State, except Cook and Lake, and to each of the first ten congressional districts, one scholarship for prospective students of agriculture in the College of Agriculture and one for prospective students of household science in the College of Liberal Arts and Sciences or the College of Agriculture.

Appointments to scholarships in agriculture are made by the Trustees of the University upon the recommendation of the Executive Committee of the Illinois Farmers' Institute; and to scholarships in household science upon the recommendation of the County Domestic Science Associations, or, for counties and districts in which there are no domestic science associations, on the recommendation of the Illinois Farmers' Institute. Persons who have already attended the University are not eligible.

Candidates who are able to meet in full the requirements for admission to the freshman class are eligible to appointment at 16 years of age. Candidates who cannot meet these entrance requirements are eligible to appointment as special students (in the College of Agriculture) at 21 years of age.

Acceptable candidates, residents of counties or districts for which appointments have been made, not exceeding five in number from any one county or district, may be assigned to counties or districts for which no recommendations are made. The first nominee from each county or district, if duly qualified, is awarded the scholarship at the time of registration. Other nominees must pay the regular fees on registration. Assignments to counties and districts for which there are no nominees registered are made on October 15, at which time the nominees so assigned to counties or districts other than their own receive rebates of the full amount of the matriculation and incidental fees paid.

The scholarships are good for two years and relieve the holders from the payment of the matriculation fee (\$10.00, payable once, upon matriculation), and the incidental fees (\$24.00 a year). If, before a scholarship expires, the holder satisfies in full the requirements for admission to the freshman class of the college in which he or she is enrolled the term of the scholarship may be extended to four years from the date of the student's matriculation.

MILITARY SCHOLARSHIPS

Students who have had three semesters of class instruction in military science and four semesters of drill practise are eligible for appointment as commissioned officers of the University Corps of Cadets. To those attaining this rank, special military scholarships, good for one year, and equal in value to the university incidental fees for the year, are open. The amount of these scholarships is paid to the holders at the close of the academic year. Appointments in the Corps of Cadets are made on the recommendation of the Commandant of Cadets, confirmed by the Council of Administration.

OTHER SCHOLARSHIPS

For scholarships in the College of Law, see page 218.

For scholarships in the Summer Session, see page 212.

For fellowships and graduate scholarships, see under Graduate School, page 193.

BENEFICIARY AID

EDWARD SNYDER DEPARTMENT OF STUDENTS' AID

In 1899 Edward Snyder, Professor of the German Language and Literature, *Emeritus*, gave the University the sum of \$12,000, to be lent to worthy students to enable them to finish their courses in the University.

This fund is available for junior, senior, and graduate students who need aid to remain and complete their work. The minimum loan made is fifty dollars (\$50); the maximum loan is one hundred and fifty dollars (\$150) to a junior, and two hundred dollars (\$200) to a senior or graduate student. Notes of hand are taken for the amount of the loans, with 5 per cent interest. The maximum time limit is for juniors three years and for seniors and graduates two years from the ensuing thirtieth of June.

Loans are made only to matriculated students who have attained at least the full rank of junior, who have been in residence at the University at least one year, who are at the time students in residence at the University, and who have declared their intention to graduate.

In recommending loans, preference is given to those students who are most advanced in their university work, who have shown themselves most assiduous and successful in their studies, and have shown habitual economy in living. No distinction is made on account of sex or course of study. A loan will not be recommended for any student who is believed to have been financially or morally delinquent in any respect.

Applications for loans must be made in writing and addressed to Dean Thomas Arkle Clark, Chairman of the Loan Fund Committee.

CLASS OF 1895 LOAN FUND

A fund of \$100.00 was established by the class of 1895, to be lent to needy and deserving students. According to the conditions of the gift, the sum of fifty dollars is to be lent annually, and the benefit of the fund is open only to students who, at the time of application, are members of the freshman class. No person may receive the benefit of the fund more than four years. The loan bears interest from the time the recipient leaves the University, and is due one-half in five years and one-half in six years after matriculation. The fund is in charge of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Committee.

GRADUATE CLUB LOAN FUND

A fund of \$75 was established by the members of the Graduate Club in 1907-1908, for the benefit of graduate students. Its administration is in the hands of the Loan Fund Committee of the Council of Administration. Applications should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Committee.

WILLIAM B. M'KINLEY LOAN FUND

In September, 1912, the Hon. William B. McKinley of Champaign, Illinois, turned over to the University notes aggregating something more than \$12,000, this amount as it is collected to be used as a loan fund for undergraduate men. In making the donation, Mr. McKinley stipulated that loans should be made to students upon their own personal notes, and that a preference should be shown in making these loans to upperclassmen. The notes draw interest at 5 per cent and become due two years after the student's graduation. Applications for loans should be made in writing and should be addressed to Dean Thomas Arkle Clark, Chairman of the Loan Fund Committee.

HENRY STRONG LOAN FUND

Mr. Gordon Strong, of Chicago, trustee of the Henry Strong Educational Fund, has for 1914-15 offered the University \$500 to be loaned to self-supporting students of high scholastic attainments. The loan bears interest at 4 per cent and is payable within one year after graduation. The fund has been loaned to two students, each of whom received \$250.

FEES AND EXPENSES

GENERAL FEES

All University fees are payable each semester in advance.

Colleges of Liberal Arts and Sciences, Engineering, and Agriculture, and Library School

<i>Matriculation Fee.</i> Each student not holding a scholarship, upon satisfying the requirements for admission to the University, pays the matriculation fee of.....	\$10.00
<i>Incidental Fee.</i> All students, excepting those holding scholarships, pay, each semester, an incidental fee of.....	12.00
<i>Tuition Fee.</i> Students conditioned on entrance requirements, and special students, except special students holding scholarships, pay, each semester, a tuition fee of.....	7.50
<i>Laboratory Fees.</i> Each student working in laboratories, or in the drafting or engineering classes, is required to pay a fee varying from \$1.00 to \$10.00, to cover materials and apparatus used and breakages or damages. (For a list of Laboratory Fees, see page 120.)	
<i>Deposit for Military Uniform.</i> Male students, citizens of the United States, under 25 years of age, entering the University as freshmen or sophomores, make a deposit to cover the cost of the required military uniform of.....	16.20
<i>Listener's Fee.</i> Persons not connected with the University who attend classes as listeners, or for credit, pay for each course, each semester	7.50
<i>Late Registration Fee.</i> A former student who enters after the Registration Days in either semester must pay a late registration fee of.....	1.00
<i>Change Fee.</i> For every change of study-list made later than the tenth day of instruction of either semester a fee of \$1.00 is charged, except that the total charge for the rearrangement authorized on any one change-slip may not exceed \$2.00.....	1.00
<i>Special Examination Fee.</i> For any special examination, the fee is.....	5.00
<i>Diploma Fee</i>	5.00

School of Music

College Courses

Matriculated students, residents of Illinois, pay, each semester, the incidental fee	\$12.00
Non-matriculated students registered for the course in <i>Public School Methods</i> , as outlined on page 199, pay, each semester:	
(1) The incidental fee	\$12.00
(2) The tuition fee	7.50

All other students (including matriculated students not residents of Illinois and all conditioned and special students), pay, each semester:

If they take music only, special music fees, as follows:

For two lessons a week.....	\$32.50
For one lesson a week.....	19.50
For harmony, counterpoint, fugue, etc.....	9.00

If they take, in addition to music, subjects in other departments:

(1) The incidental fee.....	\$12.00
(2) Unless matriculated, the tuition fee.....	7.50
(3) Special music fees, as follows:	
For two lessons a week.....	\$25.00
For one lesson a week.....	15.00
(4) For harmony, counterpoint, fugue, etc.....	9.00

Preparatory Courses

Students taking music only pay, each semester, special music fees as follows:

For two lessons a week.....	\$19.50
For one lesson a week.....	11.00

Students taking, in addition to music, subjects in other departments pay, each semester:

(1) The incidental fee.....	\$12.00
(2) Unless matriculated, the tuition fee.....	7.50
(3) Special music fees, as follows:	
For two lessons a week.....	\$15.00
For one lesson a week.....	8.50

Additional

Use of a piano for practise one hour a day, each semester.....\$ 3.00
Additional hours at the same rate.

Special students, taking music only, may enter classes in physical training on paying, each semester..... 7.50

College of Law

Matriculation fee, payable upon satisfying the entrance requirements....	\$ 10.00
Tuition fee, each semester.....	25.00
Students conditioned on entrance requirements pay, each semester, an additional fee of	7.50
Students not enrolled in the College of Law pay, each semester, for each law course	5.00

College of Medicine

Matriculation fee, each year.....	\$ 5.00
General ticket, freshman and sophomore years, each.....	120.00
Junior year	140.00
Senior year	155.00
Laboratory deposit, freshman and sophomore years, each.....	20.00
Junior year (there is no deposit in the senior year).....	5.00

College of Dentistry

Matriculation fee, each year.....	\$ 5.00
Tuition, each year (including laboratory and dissection fees).....	150.00

School of Pharmacy

Matriculation fee, paid but once.....	\$ 5.00
Tuition fee, shorter course, each year.....	75.00
Tuition fee, longer course, each year.....	125.00
Laboratory deposit, shorter course, each year.....	10.00
Laboratory course, longer course, each year.....	15.00
Diploma fee	5.00

LABORATORY FEES (FOR MATERIALS) 1914-1915

(The fees given below are in each case for one semester only; where a course runs through both semesters, the fee named is to be paid each semester.)

Animal Husbandry 30.....	\$ 1.00	Botany 17b.....	1.00
Architecture 6a.....	1.50	Botany 19.....	(See Bact.)
Architecture 6b.....	1.50	Botany 20.....	1.00
Architecture 10.....	1.00	Botany 26.....	(See Bact.)
Architecture 13.....	1.00	Botany 101.....	3.00
Architecture 14.....	1.00	Botany 102.....	3.00
Architecture 15.....	1.00	Botany 103.....	(See Bact.)
Architecture 16.....	1.00	Botany 104.....	3.00
Architecture 19a.....	1.50	Botany 105.....	(See Bact.)
Architecture 31.....	1.00	Botany 106.....	4.00
Architecture 32.....	1.00	Botany 107.....	3.00
Architecture 43.....	1.00	Ceramics 1.....	2.00
Architecture 44.....	1.00	Ceramics 5.....	5.00
Architecture 45.....	1.50	Ceramics 6.....	5.00
Architecture 46.....	1.50	Ceramics 11.....	5.00
Architecture 57.....	1.00	Ceramics 12.....	2.00
Architecture 68.....	1.50	Ceramics 13.....	4.00
Architectural Engineering 31.....	1.00	Ceramics 14.....	4.00
Architectural Engineering 43.....	1.00	Ceramics 15.....	4.00
Architectural Engineering 44.....	1.00	Ceramics 16.....	4.00
Architectural Engineering 45.....	1.50	Chemistry 1.....	8.00
Architectural Engineering 46.....	1.50	Chemistry 1a.....	6.00
Architectural Engineering 47.....	1.50	Chemistry 1b.....	6.00
Architectural Engineering 48.....	1.50	Chemistry 3.....	8.00
Architectural Engineering 68.....	1.50	Chemistry 3 (½ sem.).....	5.00
Bacteriology 5.....	7.50	Chemistry 4.....	8.00
Bacteriology 6.....	4.00	Chemistry 5a.....	10.00
Bacteriology 8.....	6.00	Chemistry 5b.....	10.00
Bacteriology 19.....	7.50	Chemistry 5c.....	10.00
Bacteriology 36.....	5.00	Chemistry 5c (8 hrs.).....	8.00
Bacteriology 103.....	3.00	Chemistry 8.....	8.00
Bacteriology 105.....	8.00	Chemistry 9a.....	10.00
Botany 1.....	2.00	Chemistry 9b.....	10.00
Botany 2a.....	1.50	Chemistry 9c.....	10.00
Botany 2b.....	1.00	Chemistry 10a.....	5.00
Botany 3a.....	3.00	Chemistry 10b (½ sem.).....	5.00
Botany 3b.....	3.00	Chemistry 11a (per hr.).....	2.00
Botany 4.....	1.00	Chemistry 11b (per hr.).....	2.00
Botany 4a.....	1.00	Chemistry 13a.....	10.00
Botany 4b.....	1.00	Chemistry 13b.....	10.00
Botany 6.....	(See Bact.)	Chemistry 15.....	8.00
Botany 7a.....	3.00	Chemistry 16.....	3.00
Botany 7b.....	3.00	Chemistry 21.....	8.00
Botany 8.....	(See Bact.)	Chemistry 22.....	10.00
Botany 9a (per hr.).....	.50	Chemistry 27.....	8.00
Botany 9b (per hr.).....	.50	Chemistry 33.....	8.00
Botany 10a.....	1.00	Chemistry 35.....	10.00
Botany 10b.....	1.00	Chemistry 61.....	5.00
Botany 12.....	2.00	Chemistry 65.....	5.00
Botany 15a (per hr.).....	.50	Chemistry 68.....	5.00
Botany 15b (per hr.).....	.50	Chemistry 69.....	5.00
Botany 16a.....	1.00	Chemistry 70.....	3.00
Botany 16b.....	1.00	Chemistry 71.....	3.00
Botany 17a.....	1.00	Chemistry 73.....	3.00

Chemistry 78.....	3.00	Geology 16.....	1.00
Chemistry 80.....	3.00	Geology 17.....	1.00
Chemistry 102c.....	5.00	Geology 18.....	1.00
Chemistry 103.....	10.00	Geology 23.....	1.00
Chemistry 103a.....	10.00	Geology 24.....	1.00
Chemistry 104.....	5.00	Geology 25.....	1.00
Chemistry 104a.....	5.00	Household Science 1.....	3.00
Chemistry 105a (per hr.).....	2.00	Household Science 4.....	5.00
Chemistry 106.....	10.00	Household Science 5a.....	2.00
Chemistry 107 (per hr.).....	2.00	Household Science 5b.....	2.00
Chemistry 108.....	3.00	Household Science 6.....	3.00
Chemistry 110.....	10.00	Household Science 10.....	2.00
Chemistry 111 (per hr.).....	2.00	Household Science 14a.....	5.00
Civil Engineering 51.....	1.50	Household Science 14b.....	5.00
Civil Engineering 13.....	1.50	Household Science 17.....	2.00
Civil Engineering 14.....	1.50	Household Science 18a.....	5.00
Civil Engineering 14a.....	.50	Household Science 18b.....	5.00
Civil Engineering 27.....	1.00	Mechanical Engineering 13.....	3.00
Civil Engineering 28.....	1.00	Mechanical Engineering 61.....	3.00
Civil Engineering 31.....	1.00	Mechanical Engineering 64.....	3.00
Civil Engineering 32.....	1.00	Mechanical Engineering 65.....	3.00
Civil Engineering 33.....	1.00	Mechanical Engineering 66.....	3.00
Civil Engineering 34.....	1.00	Mechanical Engineering 67.....	1.50
Civil Engineering 51.....	1.50	Mining Engineering 9.....	2.00
Civil Engineering 53.....	1.50	Mining Engineering 62.....	1.00
Civil Engineering 58.....	1.50	Mining Engineering 64.....	3.00
Civil Engineering 62.....	1.50	Municipal and Sanitary Engineering 2.....	1.00
Dairy Husbandry 11.....	4.00	Municipal and Sanitary Engineering 6a.....	1.00
Electrical Engineering 16.....	3.00	Physics 3a.....	2.00
Electrical Engineering 22.....	4.00	Physics 3b.....	2.00
Electrical Engineering 23.....	5.00	Physics 4a.....	2.00
Electrical Engineering 24.....	5.00	Physics 4b.....	2.00
Electrical Engineering 27.....	5.00	Physics 8a.....	2.00
Electrical Engineering 28.....	3.00	Physics 8b.....	2.00
Electrical Engineering 29.....	4.00	Physics 10a.....	2.00
Electrical Engineering 61.....	3.00	Physics 10b.....	2.00
Electrical Engineering 62.....	4.00	Physics 15.....	2.00
Electrical Engineering 64.....	3.00	Physics 16.....	2.00
Entomology 1a.....	1.00	Physics 18.....	2.00
Entomology 1b.....	1.00	Physics 22.....	2.00
Entomology 2.....	1.50	Physics 25.....	2.00
Entomology 3.....	1.50	Physics 31a.....	2.00
Entomology 4a.....	1.50	Physics 31b.....	2.00
Entomology 4b.....	1.50	Physics 32.....	2.00
Entomology 5.....	1.50	Physiology 1.....	3.50
Entomology 6a.....	2.00	Physiology 2.....	3.50
Entomology 6b.....	2.00	Physiology 3.....	3.50
Entomology 7.....	1.50	Physiology 4a.....	3.50
Entomology 8a.....	1.50	Physiology 4b.....	3.50
Entomology 8b.....	1.50	Physiology 5a.....	3.50
Entomology 9.....	1.50	Physiology 5b.....	3.50
Entomology 10.....	1.00	Physiology 103.....	3.50
Entomology 11.....	1.50	Psychology 3.....	2.00
Entomology 13.....	1.50	Psychology 4.....	2.00
Entomology 14.....	1.50	Railway Engineering 11.....	2.00
Entomology 102.....	1.50	Railway Engineering 63.....	3.00
Entomology 103.....	1.50	Theoretical and Applied Mechanics 5.....	2.00
Entomology 108.....	1.50	Theoretical and Applied Mechanics 10.....	1.00
Entomology 109.....	1.50	Theoretical and Applied Mechanics 15.....	2.00
General Engineering Drawing 2.....	1.00	Theoretical and Applied Mechanics 16.....	2.00
General Engineering Drawing 12.....	1.00	Theoretical and Applied Mechanics 25.....	2.00
Geology 1.....	1.00	Theoretical and Applied Mechanics 26.....	1.00
Geology 1a.....	1.00	Theoretical and Applied Mechanics 29.....	2.00
Geology 2.....	1.00	Zoology 1.....	2.50
Geology 3.....	2.25	Zoology 2.....	3.50
Geology 4.....	3.00	Zoology 3.....	3.00
Geology 5.....	2.75	Zoology 4.....	2.50
Geology 5a.....	2.75	Zoology 6.....	3.00
Geology 6.....	1.00	Zoology 7.....	1.00
Geology 7.....	1.00	Zoology 9.....	2.00
Geology 8.....	1.00	Zoology 11.....	3.00
Geology 9.....	1.00	Zoology 14a (per hr.).....	1.00
Geology 10.....	1.50	Zoology 14b (per hr.).....	1.00
Geology 11.....	1.00	Zoology 15a (per hr.).....	1.00
Geology 12.....	2.25	Zoology 15b (pet hr.).....	1.00
Geology 13a.....	2.00	Zoology 17.....	1.00
Geology 13b.....	2.25	Zoology 18.....	1.00
Geology 14.....	1.00	Zoology 22.....	2.00
Geology 15.....	1.00	Zoology 23.....	2.00

AVERAGE ANNUAL EXPENSES

The following are estimated average annual expenses for undergraduate students attending at Urbana, *exclusive* of books, clothing, railroad fare, laboratory fees, if any, and small miscellaneous needs:

*Semester fees	\$ 24.00 to \$ 24.00
Room rent for each student (two in room).....	72.00 to 80.00
Table board in boarding houses and clubs.....	162.00 to 200.00
Washing	20.00 to 30.00

Total	\$272.00 to \$334.00
Board and room in private house, a week.....	\$ 5.50 to \$ 6.50

In addition to the foregoing, freshmen pay a matriculation fee of \$10.00, and the men are required to buy a cadet uniform, which costs \$16.20. Freshmen engineering students will need to buy a set of drawing instruments at a cost of about \$18.00.

Other necessary expenses will need to be taken into consideration. For all the necessary expenses of the year the average student is likely to need not less than \$375.00 to \$500.00. Most students spend more than this amount.

For information in regard to scholarships which cover the matriculation and incidental fees, see page 113.

Board and Rooms

The University does not provide dormitories nor furnish board, but the numerous rooming and boarding houses near the campus are to a certain extent under the supervision of the University. The Young Men's and Young Women's Christian Associations of the University will aid new students in securing rooms and board.

Prospective women students and their parents are invited to correspond with the Dean of Women in regard to suitable places.

*Students of law and music, special students, and conditioned students must make needed changes in the amount given for "semester fees."

PART II
THE COLLEGES AND SCHOOLS

THE COLLEGE OF LIBERAL ARTS AND SCIENCES

For a description of the *buildings* used by this College, see page 50, for *museums and collections* belonging to it (art, archeology, commerce, education, European culture, botany, entomology, geology, and zoology), see pages 58, 59; for a summary of its *courses*, see pages 66-67; for *clubs and societies* auxiliary to its courses of study, see page 112; for *fees*, see page 118.

ORGANIZATION

The organization of the College of Liberal Arts and Sciences, in which are merged the former College of Literature and Arts and College of Science, became fully effective on July 1, 1913, following upon an action of the Board of Trustees, taken on July 5, 1912. During the period of transition from the old order of two Colleges, to the new single College, various temporary adjustments will be necessary; procedure according to the regulations of the former Colleges, especially in matters like requirements for admission, elective subjects, honors, and combined courses, must continue for certain groups of students already registered. Beginning in September, 1916, a new schedule of requirements for admission to the College of Liberal Arts and Sciences will go into full operation. Changes in the requirements for graduation with the degree of Bachelor of Arts have been worked out by the Faculty and approved by the Board of Trustees. These are described as the "New Requirements" and are effective for classes entering in 1913 and later. Students in other classes may proceed under the old or the new requirements. The requirements of the former Colleges are printed in separate paragraphs wherever necessary.

PURPOSE

The purpose of the College of Liberal Arts and Sciences is, first, to secure to its students a liberal education including both the humanities and the sciences; second, to furnish specially arranged courses preparatory to later professional and technical studies by which good students may ordinarily obtain in six years both the degree in arts and a professional degree in law or medicine, or a technical degree in engineering; and, third, to provide certain highly specialized courses in applied science (particularly chemistry), business administration, journalism, and household science. The degree of Bachelor of Arts is conferred upon the completion of all these courses, except those in applied science for which the degree of Bachelor of Science is given.

Under the modified elective system a student who desires to prepare for teaching may specialize to a considerable extent in the subject which he wishes to teach and may also find time for courses in education and related subjects of interest to teachers. Such students should, as a rule, continue their preparation in the Graduate School.

Students who desire to devote a considerable part of their undergraduate course to specific preparation for some calling other than teaching may select

courses in (1) business administration, including general business, secretarial service, banking, insurance, accounting, and railway administration and transportation; or (2) journalism; or (3) applied chemistry; or (4) ceramics*; or (5) household administration.

ADMISSION

See the statement of the entrance requirements of the University, pages 69-91.

SPECIAL STUDENTS

For a statement of the regulations of the University in regard to special students, see page 75.

It is the policy of this College to admit as special students only a select group of mature and serious persons who, though unable to meet the formal requirements for entrance, are substantially prepared for work of college grade.

GENERAL REQUIREMENTS FOR GRADUATION

Since the merger of the College of Literature and Arts and the College of Science in July, 1913, the faculty of the new College of Liberal Arts and Sciences has adopted a unified curriculum leading to the degree of bachelor of arts. The present juniors and seniors, however, will as a rule conform their courses to the old requirements, while the sophomores and freshmen must follow the new requirements. These are printed separately for convenience of reference.

I. Old Requirements

The following general requirements apply to all candidates for the degree of bachelor of arts who were admitted before 1913.

A. *University Requirements*.—Each candidate must meet the general University requirements as to residence and registration. He must also secure credit in approved courses (see pages 126-129 below) amounting to 130 hours. An hour is one class period a week for one semester, each class period presupposing two hours' preparation by the student, or the equivalent in laboratory or drawing room.

B. *Prescribed Studies*.—Subjects specifically prescribed for all students: *Rhetoric 1-2*[†] (6 hours); *Physical Training, 1-2 and 1a for men, 7a-7b and 9 for women; Military Science 1 and 2 for men*. In addition, students who purpose to make a science their major subject, are required to have *Chemistry 1*, and *Physics 2a, 2b (or 1, 3)* unless they have had one-year courses in these subjects in an accredited high school or acceptable equivalent courses elsewhere.

C. (1) *Group Requirements for the degree according to the schedule of the former College of Literature and Arts*.—Every candidate must offer a minimum of 8 hours in each of the following groups:

I. English, including literature and rhetoric.

II. Ancient and modern languages other than English, including Greek, Latin, the Germanic languages, and the Romance languages. Only courses which require the use of a foreign language may be counted in this group, and the 8 hours offered must be in one language.

III. The social sciences, including history, economics, political science, and sociology.

*The courses in ceramics will be transferred to the College of Engineering on July 1, 1915.

[†]Those students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from Rhetoric 1. See page 75.

IV. Mathematics and philosophy, including mathematics, education, philosophy, and psychology. A candidate who elects mathematics must take at least five hours. If a student does not elect mathematics, his elections in this group must include work in at least two of the other departments of the group. That is, if he does not take mathematics, he must take either philosophy and psychology, or philosophy and education, or education and psychology. With the exception of mathematics, no subject of this group is open to freshmen.

V. The natural sciences, including astronomy, botany, chemistry, entomology, geology, physiology, physics, and zoology. Zoology 16 may not be counted toward this group requirement.

C. (2) *Group Requirements for the degree according to the schedule of the former College of Science.*—Each candidate must offer 8 hours in each of the following groups: 1, 2, 3, and 5. In group 4, 16 hours must be offered, provided that students who have had three years of work in foreign language in an accredited high school, or an equivalent course elsewhere, will be relieved from the requirement of Group 4, and similarly, those who have had one year or two years of foreign language may be relieved from 4 hours or 8 hours respectively of this requirement. The physics and chemistry of the prescribed list may be applied on the requirements of groups 1 and 2.

Group 1.—Mathematics, physics, astronomy, logic (Philosophy 1), mineralogy (Geology 5).

Group 2.—Chemistry, geology, household science, bacteriology.

Group 3.—Botany, zoology, physiology, psychology, entomology.

Group 4.—Foreign language.

Group 5.—English literature, history, political science, economics, philosophy, education.

D. (1) *Major Subjects according to the former College of Literature and Arts.*—Each candidate must select some one subject to be designated as his major, and secure credit in that subject to the amount of 24 hours. The courses selected for the last two years should include some distinctly advanced work. The subjects which may be recognized as majors are subject to additions; at present they are as follows: Classics¹; economics; education; English² (including English literature and rhetoric); French³; German⁴; Greek¹; history; household science; Latin¹; mathematics; philosophy; political science; psychology; sociology.

Special requirements and suggestions for students in business courses and in household science are indicated below, on pages 133 and 142 respectively. Students holding scholarships in household science must make that subject their major, and take one of the courses outlined on pages 142 and 143 below.

D. (2) *Major Subjects according to the former College of Science.*—A total credit of at least 20 hours must be secured in some one of the divisions of the following major elective list. Not more than 40 hours' work (exclusive of thesis) in any one of these divisions may be applied toward graduation. In arranging the subjects to be counted toward the major requirement the student is advised to consult with the head of the department in which the major is taken.

¹For the definition of the major in this subject, see below, page 304.

²For the definition of the major in English, see below, page 329.

³A major in French must include 24 hours in addition to French 1a-1b.

⁴A major in German must include 24 hours in addition to German 1 and 3.

Major electives are: Astronomy, botany, chemistry, education, entomology, geology (including mineralogy and physical geography), household science, library science, mathematics, physics, physiology, psychology, and zoology.

E. *Elective Subjects*.—The remainder of the course is made up of electives chosen under defined conditions.

1. Credit is regularly given for courses properly announced in the following subjects: Art and design (the total credit in this department is limited to 20 hours), astronomy, botany, chemistry, the classics, economics (including accountancy and commercial law), education, English, entomology, geology, Germanic languages, history, household science, library science, mathematics, philosophy, physics, physiology, political science, psychology, Romance languages, sociology, zoology.

2. Not more than 40 hours in any one subject may be counted for graduation, except when the student is writing a thesis. In this case he may count, in addition to the 40 hours, the hours of the seminar course in which he does his thesis work. In the department of English a student may take 40 hours in addition to Rhetoric 1 and 2.

3. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours of credit for one semester, he must stay in the class during the semester in order to get any credit at all. In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.

4. Seniors graduating under the schedule of the former College of Literature and Arts who register in courses open to freshmen may receive only one-half of the credit regularly assigned to such courses. For the year 1914-1915 the following courses are included in this list: Art and Design 1 and 2; Astronomy 1; Botany 1, 4d; Chemistry 1; English 1-2, 10-11, 20; Entomology 1a-1b; French 1a-1b; Geology 3, 10, 14, 23; German 1, 3; Greek 1a-1b; History 1a-1b, 2a-2b; Household Science 2, 7a-7b; Latin 1a-1b; Library Science 12; Mathematics 2, 4; Rhetoric 1-2; Spanish 1a-1b; Zoology 1, 16.

5. A limited amount of credit toward the degree of bachelor of arts is ordinarily given for courses offered in other colleges and schools of this University. Students who continue under the schedule of the former College of Science may select, with the approval of the Dean, approximately one-third of the work to be counted toward a degree, from subjects given in other colleges of the University. Students who continue under the schedule of the former College of Literature and Arts will ordinarily confine their elections of work in other colleges and schools to the following courses:

Physical Training.—Not to exceed 5 semester hours.

Military Science and Tactics.—Military Science 1 and 2.

Law.—Law 1a-1b (Contracts); Law 2a-2b (Torts); Law 3 (Real Property); Law 4 (Pleading); Law 5 (Criminal Law); Law 6 (Personal Property). The total credit is limited to 24 hours. None of these courses may be taken before the senior year. Law 1a-1b may count for six hours only.

Engineering.—General Engineering Drawing 1 and 2 (Mechanical Drawing and Descriptive Geometry); Theoretical and Applied Mechanics 20 and 21 (Analytical Mechanics); Mechanical Engineering 12 or 11 (Thermodynamics); Civil Engineering 96 or 27 (Surveying); Architecture 31, 32 (Architectural

Drawing); Architecture 13, 14, 15, 16 (History of Architecture); Electrical Engineering 4 and 21, or 2 and 26 (Principles).

Agriculture.—Agricultural Extension (Elementary Agriculture for teachers); Agronomy 25 (Seeds), for business students only; Agronomy 9 (Soil Physics); Agronomy 22 (Plant Breeding); Animal Husbandry 7 (Principles of Animal Nutrition); Animal Husbandry 30 (Genetics); Farm Management 1; Horticulture 9 (Forestry); Horticulture 10a (Landscape Gardening); Horticulture 12 (Evolution of Horticultural Plants); Horticulture 19 (Amateur Floriculture), for household science students only. The total credit allowed in these agricultural courses will not ordinarily exceed 14 hours.

Library Science.—Library 3a-3b (Selection of Books); 7 (History of Libraries); 9 (History of Books and Printing); 2a-2b or 12 (General Reference); 13a-13b (Public Documents). The total credit allowed in Library Science will not ordinarily exceed 14 hours. The course in General Reference (Library 12) is of special value to underclassmen in the courses in Literature and Arts.

Music.—1-2, 3-4, 5-6, 7-8, 9-10, and 12-13 (courses in the history and theory of music).

Courses not listed under paragraphs 1 to 5 above may not be counted for the degree of bachelor of arts, except by special permission of the Dean of the College.

F. *Bachelors' Theses.*—A bachelor's thesis is not generally required in this College. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as a part of the work in some course for which the student is registered. Students desiring to take a thesis course in geology or mineralogy may add to their credits in those subjects the credits received for chemistry; and students in physiology may add to their credits in that subject those in zoology and bacteriology. Only students graduating with a thesis will, as a rule, be selected for fellowships, scholarships, and other similar university honors. Candidates for honors or the honor degree are required by the general regulations of the University to write a thesis. See below, page 149.

II. New Requirements

Students who were admitted in 1913 and later will conform to the following requirements for the degree of bachelor of arts:

A. *University Requirements.*—Each candidate must meet the general university requirements with respect to registration and residence. He must also secure credit in approved courses amounting to one hundred thirty hours, an hour being one class period a week for one semester. Each class period presupposes two hours preparation by the student, or the equivalent in the laboratory or drawing room.

B. *Prescribed Subjects.*—Rhetoric 1-2; Physical Training 1-2 and 1a for men; Physical Training 7a-7b and 9 for women; Military Science 1 and 2 for men.

C. *Group Requirements.*—Every candidate must offer the minimum of work specified in each of the following groups:

I. *English.*—The offering in this group must include at least a one-semester course in literature.

II. *Foreign Languages and Literatures* (exclusive of courses in translation).

If a student has offered but two units of a foreign language for entrance to the University, he must pursue the study of foreign language through two year-courses or the equivalent. If he has offered for entrance three or more units of foreign language, he must continue the study of foreign language through one year of his college course.

Note: Candidates for the degree who have not offered Greek or Latin or French or German for entrance must offer one of these languages for graduation.

III. *History, Political and Social Science*.—History, economics, political science, sociology: 8 hours.

IV. *Mathematics and Physical Science*.—Mathematics, astronomy (courses with college mathematics as prerequisites), physics, chemistry: 8 hours.

V. Botany, entomology, geology, physiology, zoology: 8 hours.

VI. Education, philosophy, psychology: 6 hours, of which 3 shall be in philosophy or psychology.

D. *Major Subjects*.—Each candidate must select some subject as his major. A major consists of courses amounting to 20 hours chosen from among those designated by a department and approved by the faculty of the college. Such courses are to be exclusive of those elementary or beginning courses which are open to freshmen, and inclusive of some distinctly advanced work.

The subjects at present recognized as majors in this college are: Astronomy, bacteriology, botany, chemistry, classics, education, economics, English, entomology, French, geology, German, Germanic languages, Greek, history, household science, Latin, mathematics, philosophy, physiology, physics, political science, psychology, Romance languages, sociology, zoology.

E. *Minor Subjects*.—Each candidate must offer, in addition to his major, a minor of 20 hours in one or more allied subjects designated by the major department and approved by the faculty of the college. At least 8 hours must be offered in one subject.

F. *Elective Subjects*.—

1. Not more than 40 hours in any one subject may be counted for graduation, except: (a) in special courses approved by the faculty of the college; (b) when a student is writing a thesis, he may count, in addition to the 40 hours, the hours of the course in which he does his thesis work; (c) in the department of English a student may take 40 hours in addition to Rhetoric 1-2.

Note: The total credit in Art and Design is limited to 20 hours.

2. No credit is granted in any subject unless the student pursues it for the full time required in the shortest course offered in that subject. For example, if the student elects a course which yields two hours for one semester, he must stay in the class during one semester in order to get any credit at all. In order to secure any credit in a beginning course in a foreign language, a full year's work must be completed.

3. A limited amount of credit towards the degree of bachelor of arts is ordinarily given for courses offered in other colleges and schools of this University, as follows:

Physical Training: Not to exceed 5 semester hours.

Military Science and Tactics: Military Science 1 and 2.

Law: See page 141.

Engineering: General Engineering Drawing 1 and 2 (Mechanical Drawing and Descriptive Geometry); Theoretical and Applied Mechanics 20 and 21 (Analytical Mechanics); Mechanical Engineering 12 and 11 (Thermodynamics); Civil Engineering 96 or 27 (Surveying); Architecture 31, 32 (Architectural Drawing); Architecture 13, 14, 15, 16 (History of Architecture); Electrical Engineering 4 and 64, or 61, 12, 62. The total credit allowed in these engineering courses will not ordinarily exceed 24 hours.

Agriculture: Agricultural Extension 1 (Elementary Agriculture for Teachers); Agronomy 12, Agronomy 25 (Seeds), for business students only; Agronomy 9 (Soil Physics); Farm Management 1; Agronomy 22 (Plant Breeding); Animal Husbandry 7 (Principles of Animal Nutrition); Animal Husbandry 30 (Genetics); Horticulture 9 (Forestry); Horticulture 10a (Landscape Gardening); Horticulture 12 (Evolution of Horticultural Plants); Horticulture 19 (Amateur Floriculture), for household science students only. The total credit allowed in these agricultural courses will not ordinarily exceed 14 hours.

Library Science: Library 7 (History of Libraries); 9 (History of Books and Printing); 2a-2b or 12 (General Reference); 13a-13b (Public Documents). The course in General Reference (Library 12) is of special value to students in the College of Liberal Arts and Sciences.

Music: Music 1-2, 3-4, 5-6, 7-8, 9-10, and 12-13 (courses in the history and theory of music).

Courses not listed under paragraphs 1 to 5 above may not be counted for the degree of Bachelor of Arts, except by special permission of the Dean of the College.

G. Bachelors' Theses: A bachelor's thesis is not generally required in this College. Students of high standing are, however, encouraged to write theses in connection with their major studies. Credit toward the degree is given for thesis work only as a part of the work in some course for which the student is registered. The presentation of a thesis is specifically required of all candidates for the honor degree.

Requirements for the Degree of Bachelor of Science

Pending further action by the College of Liberal Arts and Sciences and by the Senate, students admitted to work leading to the degree of Bachelor of Science in the General Science Course [see under "The Old Requirements," especially paragraphs C(2) and D(2)], who have completed that course including a major in Groups 4 or 5, together with two year-courses or their equivalent in foreign language, will be graduated with the degree of Bachelor of Science.

ARRANGEMENT OF COURSES

First Year

Subjects Prescribed for Freshmen

The following subjects must be taken during the freshman year: *Rhetoric* 1-2*, three hours each semester; *Military* 2, one hour each semester, and *Military*

*See footnote, page 126.

1, one hour second semester (for men); *Physical Training* (Physical Training 1-2 and 1a for men; 7a-7b and 9 for women). Students who have entered according to the requirements formerly set down for the College of Literature and Arts, must take *foreign language*, 4 hours each semester; students entering as of the former College of Science, should take *Chemistry* 1, unless chemistry has been accepted for admission.

Freshman Electives

The following subjects are open to freshmen. The total amount taken in any semester is limited to eighteen hours, and should not be less than fifteen. All freshmen in the courses in Business Administration must take 6 hours from Economics 7, 22, 26, 27.

FIRST SEMESTER

- I. English 10¹ (3)²; Rhetoric 1 (3).
 - II. French 1a (4) or 2a (4); German 1 (4) or 3 (4) or 4 (4) or 5 (4); Greek 1a (4) or 7 (3); Latin 1a (4) or 2a (4); Spanish 1a (4) or 2a (3) or 3a (2).
 - III. Mathematics 2 (3) and 4 (2).
 - IV. Economics 7 (3) and 26 (3); History 1a (4) or 2a (3).
 - V. Astronomy 1 (3); Botany 1³ (5), 4d (3); Chemistry 1⁴ (5) or 1a⁴ (4); Entomology 1a (2); Geology 1 (5), 3⁴ (5), 14 (3), 23⁴ (5); Physics 7a⁵ and 8a⁵ (5); Physiology 4a (5); Zoology 1⁴ (5).
- Household Science 2 (2) or 7a (2).
 Library Science 12 (2).
 Art and Design 1 (3).

SECOND SEMESTER

- I. English 11¹ (3)²; Rhetoric 2 (3).
 - II. French 1b (4) or 2b (4); German 3 (4) or 4 (4) or 5 (4) or 6 (4) or 7 (4); Greek 1b (4), 4 (4), or 6 (3); Latin 1b (4), or 2b (4); Spanish 1b (4) or 2b (3) or 3b (2).
 - III. Mathematics 6 (5).
 - IV. Economics 22 (3) and 27 (3); History 1b (4) or 2b (3).
 - V. Astronomy 4 (5); Botany 1³ (5), 2b (5), 3b (5), 4a (5), 4b (5), 4c (5); Chemistry 1⁴ (5) or 1a⁴ (4) or 2 and 3 (5); Entomology 1b (2); Geology 1a (5), 3⁴ (5), 8 (3), 10 (3), 12 (5); Physics 7b⁵ and 8b⁵ (5); Zoology 2 (5), 1⁴ (5), or 16 (2).
- Household Science 1 (3).
 Art and Design 1 (2).

Second Year

Male students must continue Military 2 throughout the year. Students who have failed to secure credit for any of the prescribed subjects of the freshman year must make up such deficiencies at this time.

¹English 10-11 is open only to freshmen who have presented the minimum amount of English required for admission. See the description of this course, page 329.

²The figure immediately following the subject is the number of the course (see page 263); the figures in parenthesis indicates the number of credit hours to be secured in the course each semester.

³Either semester.

⁴May be taken in either semester, but not in both.

⁵Prerequisite: Mathematics 4 (Trigonometry) which may be taken at the same time.

Election

Aside from the subjects prescribed for the first two years, each student selects, with the advice of the Dean or other college advisers, such courses as will enable him to meet the requirements for graduation as stated above.

COURSES IN BUSINESS ADMINISTRATION

Courses in economics, accountancy, banking, commerce, railway administration, and industry are offered in combination with courses in language, law, and science with the aim of providing a university training for business life. The combined courses are designed to give the student a knowledge of the principles underlying all lines of business with special training in some profession.

Requirements for Graduation

For the present the requirements for graduation for students in the Courses in Business Administration will remain as they have been in the past. In order to graduate from the University in these courses the student must secure credit for 130 hours of study, including the prescribed courses: Rhetoric 1-2; Physical Training 1-2 and 1a for men, 7a-7b and 9 for women; Military Science 1 and 2 for men. Every student must secure at least eight hours in each of the following *groups* of subjects:

- I. English language and literature, including rhetoric.
- II. Latin, Greek, French, German, Italian, Spanish.
Only courses which require the use of a foreign language may be counted in this group, and the 8 hours must be in the same language.
- III. History, economics, sociology, and political science.
- IV. Mathematics, education, philosophy, and psychology.
A candidate who elects mathematics must take at least five hours of it. If a student does not elect mathematics, his elections in this group must include work in at least two of the other departments of the group.
- V. Astronomy, botany, chemistry, entomology, geology, physiology, physics, and zoology.

Students in Business Administration must also take:

(1) Six hours for the following subjects in the freshman year: Economic Resources (Econ. 26), Modern Industries (Econ. 27), Economic History of England (Econ. 7), Economic History of the United States (Econ. 22).

In the case of students transferring from other colleges or institutions with advanced standing in the Business Courses this requirement may be modified to suit individual needs.

- (2) Principles of Economics (Econ. 1).
- (3) Business Writing (Rhet. 10). Senior Conference on Written Work (Rhet. 25-26).
- (4) Principles of Accounting (Acc'y 1a-1b).
- (5) Commercial Law (Econ. 25a-25b).

Business students are required to make economics their major. For the present 24 hours will be required as in the past, but not more than 6 hours of freshman economics (Economics 7, 22, 26, and 27) may be counted towards the major.

ARRANGEMENT OF COURSES

The subjects of study are arranged in the courses outlined below to furnish training for (1) general business, (2) commercial and civic secretaries, (3) banking, (4) insurance, (5) accountancy, (6) railway traffic and accounting, (7) railway transportation, (8) commercial teachers.

The work of the class-room is supplemented by lectures by practical specialists, and by visits of inspection to industrial and mercantile establishments.

GENERAL BUSINESS COURSE

The general business course is intended for students who wish a general knowledge of modern business organization and methods and their relation to the public welfare, without specializing in the details of any particular business.

Every student must take 15 to 18 hours of work each semester. Students desiring mathematics, or taking courses requiring it, should elect it the first year, omitting Economic Resources (Economics 26), or Economic History of the United States (Economics 22), and science, which may then be elected the second year.

FIRST YEAR

FIRST SEMESTER

Prescribed Subjects

Foreign language
Rhetoric (Rhet. 1)
Military
Physical Training
Economic Resources (Econ. 26) or
English Econ. Hist. (Econ. 7)
Mathematics (Math. 2, 4) or
Science

SECOND SEMESTER

Prescribed Subjects

Foreign language
Rhetoric (Rhet. 2)
Military
Physical Training
Modern Industries (Econ. 27) or
Econ. Hist. of U. S. (Econ. 22)
Mathematics (Math. 6) or
Science

SECOND YEAR

Prescribed Subjects

Principles of Econ. (Econ. 1)
Amer. Gov't (Pol. Sci. 1)
Military
History of U. S. (Hist. 3a) or
English History (Hist. 2a) or
European History (Hist. 1a)

Suggested Electives

Foreign language continued
Mathematics
Science

Prescribed Subjects

Money and Banking (Econ. 3)
Business Organization (Econ. 6)
Business Writing (Rhet. 10)
Military
State and Local Gov't (Pol. Sci. 3)
History of U. S. (Hist. 3b) or
English History (Hist. 2b)
European History (Hist. 1b)

Suggested Electives

Foreign language continued
Mathematics
Science

THIRD YEAR

Prescribed Subjects

Elementary and Intermediate Accounting
(Acc'y 1b)
Domestic Com. (Econ. 28) or
Foreign Com. (Econ. 29)

Suggested Electives

History
Public Finance (Econ. 5)
Foreign Language continued
Advanced Accounting and Auditing (Acc'y 2a)
Railway Transportation (Econ. 41)
State Administration (Pol. Sci. 13)
Psychology (Psych. 1)
Municipal Gov't (Pol. Sci. 4)
Sales Correspondence (Rhet. 21)

Prescribed Subjects

Elementary and Intermediate Accounting
(Acc'y 1b)
Corporation Management (Econ. 10)
Organization of Foreign Com. (Econ. 81)
or
Tariff and Customs Regulations (Econ. 30)

Suggested Electives

History
Indust. Consol. (Econ. 11)
Foreign language continued
Advanced Accounting and Auditing (Acc'y 2b)
Railway Rates (Econ. 42)
Psychology (Psych. 2)
Logic (Phil. 1)
Summarizing and Abstracting (Rhet. 22)

FOURTH YEAR

Prescribed Subjects

Seminar (Econ. 18a)
 Conference on Written Work (Rhet. 25)
 Labor Problems (Econ. 12)
 Commercial Law (Econ. 25a)
 Salesmanship (Econ. 37)

Suggested Electives

Political Ethics (Phil. 9)
 Constitutional Law (Pol. Sci. 5)
 Finan. Hist. of U. S. (Econ. 4a)
 (See also third year electives)

Prescribed Subjects

Seminar (Econ. 18b)
 Conference on Written Work (Rhet. 26)
 Commercial Law (Econ. 25b)
 Economic Development of Europe (Econ. 13)
 Advertising (Econ. 38)

Suggested Electives

Economic Reform (Econ. 21)
 Finan. Hist. of U. S. (Econ. 4b)
 (See also third year electives)

COURSE FOR COMMERCIAL AND CIVIC SECRETARIES

This course is intended for students who expect to take service with chambers of commerce, commercial clubs, and civic organizations. The work of the first and second year is the same as in the general business course.

THIRD YEAR

FIRST SEMESTER

Prescribed Subjects

Elementary and Intermediate Accounting
 (Acc'y 1a)
 Domestic Commerce (Econ. 28) or
 Foreign Commerce (Econ. 29)
 Municipal Gov't (Pol. Sci. 4)

Suggested Electives

Sales Correspondence (Rhet. 21)
 Public Finance (Econ. 5)
 Prin. of Sociol. (Sociol. 1)
 State Administration (Pol. Sci. 13)
 Political Ethics (Phil. 9)
 Property Insurance (Econ. 34)

SECOND SEMESTER

Prescribed Subjects

Elementary and Intermediate Accounting
 (Acc'y 1b)
 Organization of Foreign Commerce (Econ. 31) or
 Tariff and Customs Regulations (Econ. 30)
 Corporation Management (Econ. 10)
 Charities (Sociol. 8)

Suggested Electives

Summarizing and Abstracting (Rhet. 22)
 Indust. Consol. (Econ. 11)
 Nat. Administration (Pol. Sci. 12)
 Logic (Phil. 1)
 Gov't of Illinois (Pol. Sci. 16)

FOURTH YEAR

Prescribed Subjects

Commercial Law (Econ. 25a)
 Railway Transportation (Econ. 41)
 Foreign Commerce (Econ. 29) or
 Domestic Commerce (Econ. 28)
 Conference on Written Work (Rhet. 25)
 Salesmanship (Econ. 37)

Suggested Electives

Seminar (Econ. 18a)
 Constitutional Law of U. S. (Pol. Sci. 5)
 Labor Problems (Econ. 12)
 Population (Sociol. 10)

Prescribed Subjects

Commercial Law (Econ. 25b)
 Railway Rates (Econ. 42)
 Tariff and Customs Regulations (Econ. 30)
 or
 Organization of Foreign Commerce (Econ. 31)
 Conference on Written Work (Rhet. 26)
 Advertising (Econ. 38)

Suggested Electives

Seminar (Econ. 18b)
 Social and Industrial Problems (Pol. Sci. 11)
 Economic Reform (Econ. 21)
 Criminology (Sociol. 9)

COURSE IN BANKING

The work of the first and second years in banking is the same as in the course in general business, but students must take advanced algebra (Math. 2), which is a prerequisite for the mathematics of investment (Math. 23).

THIRD YEAR

FIRST SEMESTER

Prescribed Subjects

Elementary and Intermediate Accounting
 (Acc'y 1a)
 Public Finance (Econ. 5)

Suggested Electives

Domestic Com. (Econ. 28)
 Logic (Phil. 1)
 History

SECOND SEMESTER

Prescribed Subjects

Elementary and Intermediate Accounting
 (Acc'y 1b)
 Math. of Investment (Math. 28)
 Corporation Management (Econ. 10)
 Economic Development of Europe (Econ. 13)

Suggested Electives

Tariff and Customs Regulations (Econ. 30)
 Indust. Consol. (Econ. 11)
 History

FOURTH YEAR

Prescribed Subjects

Practical Banking (Econ. 9)
 Finan. Hist. of U. S. (Econ. 4a)
 Foreign Com. (Econ. 29)
 Commercial Law (Econ. 25a)
 Seminar (Econ. 18a)
 Conference on Written Work (Rhet. 25)

Suggested Electives

Labor Problems (Econ. 12)
 Political Ethics (Phil. 9)
 Advanced Accounting and Auditing (Acc'y 2a)

Prescribed Subjects

The Money Market (Econ. 8)
 Finan. Hist. of U. S. (Econ. 4b)
 Commercial Law (Econ. 25b)
 Seminar (Econ. 18b)
 Conference on Written Work (Rhet. 26)

Suggested Electives

Organization of Foreign Commerce (Econ. 81)
 Advanced Accounting and Auditing (Acc'y 2b)

COURSE IN INSURANCE

The work of the first and second years in insurance is the same as in the course in railway traffic and accounting, except that Economics 7 (Econ. Hist. of England) may take the place of Economic Resources (Econ. 26), and that any other science may be taken instead of physics.

THIRD YEAR

FIRST SEMESTER

Prescribed Subjects

Elementary and Intermediate Accounting (Acc'y 1a)
 Amer. Gov't (Pol. Sci. 1)

Suggested Electives

Foreign language continued
 Hist. of U. S. (Hist. 8a)
 European History (Hist. 1a)
 Public Finance (Econ. 5)
 Sales Correspondence (Rhet. 21)

SECOND SEMESTER

Prescribed Subjects

Elementary and Intermediate Accounting (Acc'y 1b)
 Corporation Management (Econ. 10)
 Mathematics of Investment (Math. 23)
 State and Local Gov't (Pol. Sci. 3)

Suggested Electives

Foreign language continued
 History of U. S. (Hist. 8b)
 European History (Hist. 1b)
 Summarizing and Abstracting (Rhet. 22)

FOURTH YEAR

Prescribed Subjects

Property Insurance (Econ. 34)
 Commercial Law (Econ. 25a)
 Sem. in Insur. (Econ. 18a)
 Conference on Written Work (Rhet. 25)
 Actuarial Theory (Math. 31)
 State Administration (Pol. Sci. 18)

Suggested Electives

Finan. Hist. of U. S. (Econ. 4a)
 Political Ethics (Phil. 9)
 Labor Problems (Econ. 12)
 Practical Banking (Econ. 9)
 Salesmanship (Econ. 37)

Prescribed Subjects

Econ. of Insurance (Econ. 33)
 Commercial Law (Econ. 25b)
 Sem. in Insur. (Econ. 18b)
 Conference on Written Work (Rhet. 26)

Suggested Electives

Finan. Hist. of U. S. (Econ. 4b)
 Econ. Development of Europe (Econ. 13)
 Indus. Consolid. (Econ. 11)
 Money Market (Econ. 8)
 Advertising (Econ. 38)

COURSES IN ACCOUNTANCY

The development of the commercial, industrial, and financial interests of the country has given rise to a demand for three classes of workers in accountancy: (1) the teacher, (2) the business executive, (3) the public accountant.

In order to give students adequate preparation for these three fields, the University offers several courses of study:

1. A four years' course in business administration with a maximum of work in accountancy, economics, history, political science, statistics, language, and other subjects.

2. Work in accountancy open to election by students in business administration as part of the general training necessary to a successful business executive.

3. A two years' special course in preparation for the examinations required by law for securing a certificate as a Certified Public Accountant.

According to this law, passed in 1903, establishing accountancy upon a professional basis, candidates are required to pass examinations in commercial law as affecting accountancy, the theory of accounts, practical accounting, and auditing.

Four-Year Course in Accountancy

FIRST YEAR	
FIRST SEMESTER	SECOND SEMESTER
<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Foreign language Rhetoric (Rhet. 1) Military Physical Training Algebra and Trig. (Math. 2, 4) English Econ. Hist. (Econ. 7) or Economic Resources (Econ. 26)	Foreign language Rhetoric (Rhet. 2) Military Physical Training Analytical Geom. (Math. 6) Modern Industries (Econ. 27) or Econ. Hist. of U. S. (Econ. 22)
SECOND YEAR	
<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Principles of Econ. (Econ. 1) Elementary and Intermediate Accounting (Acc'y 1a) Science Military	Money and Banking (Econ. 3) Business Organization (Econ. 6) Business Writing (Rhet. 10) Elementary and Intermediate Accounting (Acc'y 1b) Science Military
<i>Suggested Electives</i>	<i>Suggested Electives</i>
Foreign language continued Calculus (Math. 7-9) European History (Hist. 1a) Hist. of U. S. (Hist. 8a) Amer. Gov't (Pol. Sci. 1)	Foreign language continued European History (Hist. 1b) Hist. of U. S. (Hist. 8b) State and Local Gov't (Pol. Sci. 3)
THIRD YEAR	
<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Advanced Accounting and Auditing (Acc'y 2a) Public Finance (Econ. 5) Municipal Gov't (Pol. Sci. 4)	Advanced Accounting and Auditing (Acc'y 2b) Corporation Management (Econ. 10) Mathematics of Investment (Math. 23)
<i>Suggested Electives</i>	<i>Suggested Electives</i>
Sales Correspondence (Rhet. 21) Foreign language Domestic Commerce (Econ. 28) Logic (Phil. 1) Railway Transportation (Econ. 41)	Summarizing and Abstracting (Rhet. 22) Foreign language Tariff and Customs Regulations (Econ. 30) Railway Rates (Econ. 42)
FOURTH YEAR	
<i>Prescribed Subjects</i>	<i>Prescribed Subjects</i>
Accounting Problems and Auditing (Acc'y 3a) Commercial Law (Econ. 25a) Seminar (Econ. 18a) Conference on Written Work (Rhet. 25) Political Ethics (Phil. 9)	Accounting Problems and Auditing (Acc'y 3a) Commercial Law (Econ. 25b) Seminar (Econ. 18b) Conference on Written Work (Rhet. 26)
<i>Suggested Electives</i>	<i>Suggested Electives</i>
Practical Banking (Econ. 9) Finan. Hist. of U. S. (Econ. 4a) Labor Problems (Econ. 12)	Money Market (Econ. 8) Finan. Hist. of U. S. (Econ. 4b)

Two-Year Course in Accountancy

This course is open only to students in accountancy who are preparing for the C. P. A. examinations, who are at least 20 years of age and able to matriculate in the University, and who can furnish satisfactory evidence of at least one year's experience in the office of a practising public accountant. The course must be taken as outlined. No variation from it is allowed.

FIRST YEAR

FIRST SEMESTER

Prescribed Subjects

Elementary and Intermediate Accounting (Acc'y 1a)
 Rhetoric (Rhet. 1)
 Finan. Hist. of U. S. (Econ. 4a)
 Algebra (Math. 2)
 Military
 Physical Training

SECOND SEMESTER

Prescribed Subjects

Elementary and Intermediate Accounting (Acc'y 1b)
 Business Organization (Econ. 6)
 Rhetoric (Rhet. 2)
 Money and Banking (Econ. 3)
 Mathematics of Investment (Math. 23)
 Military
 Physical Training

SECOND YEAR

Prescribed Subjects

Advanced Accounting and Auditing (Acc'y 2a)
 Accounting Problems and Auditing (Acc'y 3a)
 Commercial Law (Econ. 25a)
 Practical Banking (Econ. 9)
 Property Insurance (Econ. 34)
 Military

Prescribed Subjects

Advanced Accounting and Auditing (Acc'y 2b)
 Accounting Problems and Auditing (Acc'y 3b)
 Business Writing (Rhet. 10)
 Corporation Management (Econ. 10)
 Commercial Law (Econ. 25b)
 Economics of Insurance (Econ. 33)
 State and Local Gov't (Pol. Sci. 3)
 Military

COURSES IN RAILWAY ADMINISTRATION

There are two courses offered under the head of railway administration, one emphasizing those subjects which are of most value to the student interested in the accounting and traffic aspects of railway work, the other laying stress upon the transportation service, properly so called, and intended to prepare men directly for the transportation departments of railways.

Course in Railway Traffic and Accounting

FIRST YEAR

FIRST SEMESTER

Prescribed Subjects

Foreign language
 Rhetoric (Rhet. 1)
 Military
 Physical Training
 Algebra and Trig. (Math. 2, 4)
 Economic Resources (Econ. 26) or
 Eng. Econ. Hist. (Econ. 7)

SECOND SEMESTER

Prescribed Subjects

Foreign language
 Rhetoric (Rhet. 2)
 Military
 Physical Training
 Analytical Geometry (Math. 6)
 Econ. Hist. of U. S. (Econ. 22) or
 Modern Industries (Econ. 27)

SECOND YEAR

Prescribed Subjects

Principles of Econ. (Econ. 1)
 Elementary and Intermediate Accounting (Acc'y 1a)
 Amer. Gov't (Pol. Sci. 1)
 Physics (Phys. 1a and 3a)
 Military

Prescribed Subjects

Money and Banking (Econ. 8)
 Business Organization (Econ. 6)
 Elementary and Intermediate Accounting (Acc'y 1b)
 Business Writing (Rhet. 10)
 Physics (Phys. 1b and 3b)
 Military

THIRD YEAR

Prescribed Subjects

Adv. Accounting and Audit. (Acc'y 2a)
 Railway Transportation (Econ. 41)
 Railway Operation (Econ. 45a) or
 Traffic Administration (Econ. 43a)

Prescribed Subjects

Adv. Accounting and Audit. (Acc'y 2b)
 Corporation Management (Econ. 10)
 Railway Rates (Econ. 42)
 Mathematics of Investment (Math. 23)
 Railway Operation (Econ. 45b) or
 Traffic Administration (Econ. 43b)

FOURTH YEAR

Prescribed Subjects

Accounting Problems and Auditing (Acc'y 3a)
 Traffic Admin. (Econ. 43a) or
 Railway Operation (Econ. 45a)
 Sem. in R'y Admin. (Econ. 18a)
 Conference on Written Work (Rhet. 25)
 Commercial Law (Econ. 25a)

Prescribed Subjects

Accounting Problems and Auditing (Acc'y 3b)
 Traffic Admin. (Econ. 43b) or
 Railway Operation (Econ. 45b)
 Sem. in R'y Admin. (Econ. 18b)
 Conference on Written Work (Rhet. 26)
 Commercial Law (Econ. 25b)

Course in Railway Transportation

In choosing additional courses to make up the required 130 hours of credit, six hours of such electives must be taken in history, political science, more advanced language, or philosophy.

FIRST YEAR

FIRST SEMESTER

Prescribed Subjects

Foreign language
Rhetoric (Rhet. 1)
Military
Physical Training
Gen. Engin. Drawing (G. E. D. 1)
Algebra and Trig. (Math. 2, 4)

SECOND SEMESTER

Prescribed Subjects

Foreign language
Rhetoric (Rhet. 2)
Military
Physical Training
*Descriptive Geom. (G. E. D. 12)
Anal. Geom. (Math. 6)

SECOND YEAR

Prescribed Subjects

Principles of Econ. (Econ. 1)
Calculus (Math. 7)
Physics (Phys. 1a, 3a)
Military

Prescribed Subjects

Money and Banking (Econ. 3)
Business Organization (Econ. 6)
Physics (Phys. 1b, 3b)
Military
Anal. Mech. (T. and A. M. 20)

THIRD YEAR

Prescribed Subjects

Railway Transportation (Econ. 41)
Traffic Admin. (Econ. 43a) or
Railway Operation (Econ. 45a)
Anal. Mech. and Resist. of Materials (T. and A. M. 21, 29)

Prescribed Subjects

Business Writing (Rhet. 10)
Railway Rates (Econ. 42)
Traffic Administration (Econ. 43b) or
Railway Operation (Econ. 45b)
Engines and Boilers (M. E. 1)
Electrical Engin. (E. E. 11)
Surveying (C. E. 96)

FOURTH YEAR

Prescribed Subjects

Railway Operation (Econ. 45a) or
Traffic Admin. (Econ. 43a)
Sem. in Ry. Admin. (Econ. 18a)
Conference on Written Work (Rhet. 25)
Elementary and Intermediate Accounting (Acc'y 1a)
Labor Problems (Econ. 12)
Locomotives (Ry. M. E. 1)
Engin. Materials (T. and A. M. 29)

Prescribed Subjects

Railway Operation (Econ. 45b) or
Traffic Admin. (Econ. 43b)
Mech. Engin. Lab. (M. E. 61)
Sem. in Ry. Admin. (Econ. 18b)
Conference on Written Work (Rhet. 26)
Elementary and Intermediate Accounting (Acc'y 1b)
Ry. Tests (Ry. M. E. 11)
Mech. Engin. Lab. (M. E. 61)

COURSE FOR COMMERCIAL TEACHERS

This course is intended for students who are planning to teach commercial subjects in secondary schools.

FIRST YEAR

FIRST SEMESTER

Prescribed Subjects

Foreign language
Rhetoric (Rhet. 1)
Military
Physical Training
English Economic History (Econ. 7) or
Economic Resources (Econ. 26)
Mathematics (Math. 2, 4) or
Science

SECOND SEMESTER

Prescribed Subjects

Foreign language
Rhetoric (Rhet. 2)
Military
Physical Training
Econ. Hist. of U. S. (Econ. 22)
Modern Industries (Econ. 27)
Mathematics (Math. 6) or
Science

*This subject is to be taken for three hours' credit only.

SECOND YEAR

Prescribed Subjects

Principles of Econ. (Econ. 1)
 Amer. Gov't (Pol. Sci. 1)
 Psychology (Psychol. 1)
 Military
 History of U. S. (Hist. 3a) or
 European History (Hist. 1a)

Suggested Electives

Foreign language continued.
 Mathematics
 Science
 English literature

Prescribed Subjects

Money and Banking (Econ. 3)
 Business Organization (Econ. 6)
 Business Writing (Rhet. 10)
 Psychology (Psychol. 2)
 Military
 History of U. S. (Hist. 3b) or
 European History (Hist. 1b)

Suggested Electives

Foreign language continued
 Mathematics
 Science
 English literature

THIRD YEAR

Prescribed Subjects

Elementary and Intermediate Accounting
 (Acc'y 1a)
 Prin. of Education (Educ. 1)
 Domestic Commerce (Econ. 28) or
 Foreign Commerce (Econ. 29)

Suggested Electives

History
 Foreign language continued
 Logic (Phil. 1)
 Public Finance (Econ. 5)
 Municipal Gov't (Pol. Sci. 4)
 Railway Transportation (Econ. 41)
 Sales Correspondence (Rhet. 21)

Prescribed Subjects

Elementary and Intermediate Accounting
 (Acc'y 1b)
 Corporation Management (Econ. 10)
 Hist. of Education (Educ. 2)
 Organization of Foreign Commerce (Econ.
 31) or
 Tariff and Customs Regulations (Econ. 30)

Suggested Electives

History
 Foreign language continued
 Intro. to Philosophy (Phil. 2)
 Prin. of Second. Educ. (Educ. 6)
 Railway Rates (Econ. 42)
 Summarizing and Abstracting (Rhet. 22)

FOURTH YEAR

Prescribed Subjects

Seminar (Econ. 18a)
 Conference on Written Work (Rhet. 25)
 Labor Problems (Econ. 12)
 Commercial Law (Econ. 25a)
 Observation and Technique of Teaching
 (Educ. 10)

Suggested Electives

Advanced Accounting and Auditing (Acc'y
 2a)
 Political Ethics (Phil. 9)
 Finan. Hist. of U. S. (Econ. 4a)
 Constitutional Law of U. S. (Pol. Sci. 5)
 Practical Banking (Econ. 9)
 (See also third year electives)

Prescribed Subjects

Seminar (Econ. 18b)
 Conference on Written Work (Rhet. 26)
 Econ. Devel. of Europe (Econ. 13)
 Commercial Law (Econ. 25b)
 Social Education (Educ. 16) or
 School Hygiene (Educ. 15)

Suggested Electives

Advanced Accounting and Auditing (Acc'y
 2b)
 Social Reform (Econ. 21)
 Financial Hist. of U. S. (Econ. 4b)
 The Money Market (Econ. 8)
 (See also third year electives)

COURSE IN JOURNALISM

Students who are preparing to enter the advertising or managerial sides of journalistic work should elect economics as a major and enroll in one of the business courses. The work they will take will then be selected under the advice of the proper instructors, according to the needs of the individual student and within the requirements of the College for graduation.

Students who are preparing for journalistic work on the reportorial, literary, or editorial sides should take their major work in English, following the suggested course. With the consent of the adviser, other courses may, for purposes of specialization, be substituted for suggested courses. A program which satisfies the group and major requirements may, for instance, be so modified in the third and fourth years as to lay emphasis on any one of the social sciences.

Students in journalism with major in English are subject to the requirements of the General Course in Liberal Arts and Sciences.

Suggested Course in Journalism

(Major in English)

FIRST YEAR

Prescribed Subjects

Rhetoric 1.....	3
Physical training.....	1
Military	1

Suggested Electives

Continental European History (Hist. 1a).....	4
Foreign language.....	4
English 10 or science.....	3 or 5
General Reference (Library 12).....	2

Prescribed Subjects

Rhetoric 2.....	3
Physical training.....	1
Military	2

Suggested Electives

History 1b.....	4
Foreign language.....	4
English 11 or science.....	3

SECOND YEAR

Prescribed Subjects

Military	1
----------------	---

Suggested Electives

News Writing (Rhetoric 12).....	2
English 1 or science.....	3 or 4 or 5
History of U. S. (Hist. 3a).....	3
Foreign language continued.....	4
Am. Natl. Gov't (Pol. Sci. 1) or Prin- ciples of Economics (Econ. 1).....	5
Am. Literature (English 12).....	2

Prescribed Subjects

Military	1
----------------	---

Suggested Electives

News Writing (Rhetoric 13).....	2
Foreign language continued.....	4
History of U. S. (Hist. 3b).....	3
English 2 or State & Local Govt. (Pol. Sci. 3) (4 or 3) or Money and Banking (Econ. 3).....	3
Shakspeare (English 23) or.....	3
Literature (English 13).....	2

THIRD YEAR

Intermediate English.....	(3)
Municipal Govt. (Pol. Sci. 4).....	3
Foreign language continued.....	3 or 4
Logic (Philosophy 1).....	3
Rhetoric 15 or 6, or Psychology 1.....	3
Sociology 1.....	3

Intermediate English.....	(3)
Science	5
State & Local Govt. (Pol. Sci. 3) or Polit- ical Parties (Pol. Sci. 14).....	3 or 2
Intro. to Philosophy (Phil. 2).....	3
Foreign language.....	3 or 4
Rhetoric 16 or 17, or Psychology 1.....	3
Sociology 3.....	3

FOURTH YEAR

Rhetoric 15 or English 27.....	3
Political Ethics (Phil. 9) or Const. Law (Pol. Sci. 5).....	3
History of U. S. (Hist. 21).....	3
Public Finance, or Corporation Manage- ment and Finance, or Labor Problems (Econ. 5 or 10 or 12).....	3
Foreign language.....	3 or 4

Rhetoric 16 or English 28.....	3
Contemporary Politics (Pol. Sci. 18 or 28).....	2 or 3
Social & Indust. Legis. (Pol. Sci. 11).....	3
Industrial Consolidation, or Economic His- tory of Europe or Socialism and Social Reform (Econ. 11 or 13 or 21).....	3
Foreign language.....	3 or 4

COURSE PRELIMINARY TO LAW

It is recognized by the best authorities on legal education that professional studies in law should be preceded by a thorough course in the humanities and the sciences. As a foundation for the study and practise of law, the following subjects offered by this College are of special importance: English, with special reference to composition and public speaking; Latin and French; logic; constitutional and political history; political science; economics; sociology.

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. The following first year courses in the College of Law, not exceeding a total of 24 hours, may be counted for the degree of Bachelor of Arts: Law 1a-1b (contracts); Law 2a-2b (torts); Law 3 (real property); Law 4 (pleading); Law 5 (criminal law); Law 6 (personal property). Law 1a-1b may count for six hours only. *Students are not permitted to take this work in law until their senior year.* If the student is also a candidate for the degree of LL.B., or J.D., he should in his fourth year register in the College of Law, pay the usual fee of that College, and file a copy of his study-list with the adviser for seniors in this College. A

fee of five dollars is charged for every law subject taken by students who do not pay the regular law school fee.

Courses in law do not in themselves constitute a major in this College, but six hours of law are accepted as part of the requirements for majors in the following departments: economics, history, political science, and sociology.

When taken by students registered in the College of Law, credit to a total of six hours toward the degree of LL.B. is accepted for courses offered by the College of Liberal Arts and Sciences in jurisprudence, international law, administrative law, and the law of taxation.

The degree of Bachelor of Arts is conferred at the close of the fourth year of the combined course provided that all the requirements for the degree are met at that time.

Candidates for the degree of Doctor of Law (J.D.) must take four hours in history, economics, political science, or sociology, in the fourth year of their course.

Students admitted to this University from other institutions may count the above courses in law for the degree of A.B. only on condition of completing at least 30 hours' work in residence in subjects offered by the College of Liberal Arts and Sciences.

See also the course outlined by the College of Law, page 214.

HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of four classes of students: (a) those who desire a knowledge of the general principles and facts of household science; (b) those who wish to make a specialty of household science for the purpose of teaching the subject in secondary schools and colleges; (c) those who wish some knowledge of the principles underlying household administration and institutional management; (d) those who are interested in the work of dietitians.

The suggested courses for teachers and for institutional workers are outlined below. The electives of the junior and senior years of the course in administration make possible a choice between lunch room management and institutional management, while the first three years of the course as outlined for teachers give a scientific basis for the work of the dietitian.

Students who hold scholarships in household science must make this subject their major along one of the lines indicated above and take each semester at least four hours in household science or in subjects required for admission to courses in household science.

Students who major in household science must also satisfy the requirements of the General Course in the College of Liberal Arts and Sciences in so far as these are not covered in the courses given below.

Suggested Course for Teachers of Household Science

FIRST SEMESTER	FIRST YEAR	SECOND SEMESTER
Inorganic Chemistry (Chem. 1)		*Principles of the Selection and Preparation of Food (Household Sci. 1)
Home Architecture & Sanitation (Household Science 2)		Inorganic Chemistry (Chem. 2)
Introductory Zoology (Zool. 1)		Qualitative Analysis (Chem. 3)
Rhetoric & Themes (Rhet. 1)		Rhetoric & Themes (Rhet. 2)
Physical Training 7a		Free Hand Drawing (Art & Design 1)
Hygiene (Physical Train. 9)		Physical Training 7b
		Textiles (Household Sci. 7b)

*Attention is called to the fact that high-school physics is a prerequisite for Household Science 1.

SECOND YEAR

Agricultural Analysis (Chem. 13a)
 Economic Uses of Food (Household Science 6)
 Survey of English Literature (Eng. 1)
 Applied Design (Art & Design 12)

Organic Chemistry (Chem. 9)
 Organic Synthesis (Chem. 9c)
 Household Art and Clothing (Household Science 12)
 Survey of English Literature (Eng. 2)
 Plane Trigonometry (Math. 4)

THIRD YEAR

Minor Course in Physiol. (Physiol. 4a)
 General Physics (Physics 7a)
 Physics Laboratory (Phys. 8a)
 Principles of Economics (Econ. 2)
 Foreign language
 Electives

Elementary Home Decoration (Household Science 3)
 Dietetics (Household Science 5b)
 Bacteriology (Bacteriology 5)
 Foreign language
 Electives

FOURTH YEAR

Food and Nutrition (Household Science 4)
 Principles of Education (Edu. 1)
 History of Home Economics (Household Science 13)
 Electives

Teachers' Course (Household Sci. 11)
 Principles of Secondary Education or Observation and Technique of Teaching (Education 6 or 10)
 Home Management (Household Science 10)
 Electives

The following subjects are suggested as electives for the junior and senior years: Psychology 1, 2; Botany 1; foreign language.

Suggested Course in Household Administration

FIRST YEAR

FIRST SEMESTER

Rhetoric and Themes (Rhet. 1)
 Foreign language
 Free Hand Drawing (Art & Design 1)
 Home Architecture & Sanitation (Household Science 2)
 Hygiene (Physical Training 9)
 Physical Training 7a

Electives

Economic Resources (Econ. 26)
 General Reference (Lib. Sci. 12)

SECOND SEMESTER

Rhetoric and Themes (Rhet. 2)
 Foreign language
 Art & Design 12
 Textiles (Household Science 7b)
 Physical Training 7b
 General Zoology (Zoology 1)

SECOND YEAR

Inorganic Chemistry (Chem. 1)
 Principles of Economics (Econ. 1)
 Foreign language or Eng. 1

Suggested Electives

Continental European History (Hist. 1a)
 History of the United States (Hist. 3a)
 History of the Fine Arts (Art & Design 19)
 English

*Principles of the Selection and Preparation of Food (Household Science 1)
 Inorganic Chemistry (Chem. 2)
 Qualitative Analysis (Chem. 3)
 Foreign language (if not completed)

Suggested Electives

Continental European History (Hist. 1b)
 History of the United States (Hist. 3b)
 English
 History of the Fine Arts (Art & Design 20)
 Economic History of the United States (Economics 22)

THIRD YEAR

General Physiology (Physiol. 4a)
 Economic Use of Food (Household Science 6)
 Introduction to Psychology (Psychol. 1)

Suggested Electives

Principles of Sociology (Soc. 1)
 English
 Agricultural Analysis (Chem. 13a)

Dietetics (Household Science 5b)
 Elementary Home Decoration (Household Science 3)
 Household Management (Household Science 10)
 Household Art and Clothing (Household Science 12)
 General Psychology (Psychology 2)

Suggested Electives

Problems in Service of Food (Household Science 14a)
 State and Local Gov't (Pol. Science 3)
 Government of Illinois (Political Science 16)
 Logic (Philosophy 1)
 Organic Chemistry (Chem. 9 and 9c)

*Attention is called to the fact that high-school physics is a prerequisite for Household Science 1.

FOURTH YEAR

Suggested Electives

History of Home Economics (Household Science 13)
 Economics of Family Group (Household Science 15)
 Lunch Room Management (Household Science 18a)
 Introduction to Bacteriology (Bacteriology 5)
 English

Introduction to Education (Education 1)
 Food and Nutrition (Household Science 4)

Suggested Electives

Teachers' Course (Household Science 11)
 Problems in the Study of Textiles (Household Science 17)
 Seminar (Household Science 9)
 Observation and Technique (Education 10)
 English

SIX-YEAR AND SEVEN-YEAR MEDICAL COURSES

The University offers a six-year and a seven-year medical course. The six-year course includes three years given at Urbana and three years in the College of Medicine in Chicago; the seven-year course includes four years at Urbana and three years in Chicago. The work given at Urbana includes substantially, in both courses, the work of the first year of a standard course in medicine, together with two years or three years in liberal arts and sciences. Students who have completed the work of the first two years and are taking the work of the third year are registered for that year as medical students in the University of Illinois College of Medicine.

A student who has completed the course outlined below and who then complete's a year's work in medicine in a recognized medical school may receive credit by transfer for this year of medical work, and thus receive the degree of Bachelor of Arts from the University of Illinois. Under this plan the student may obtain the degrees of Bachelor of Arts and Doctor of Medicine with six years' or seven years' work.

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
General Chemistry (Chem. 1).....	5	Descrip. Inorg. Chem. (Chem. 2).....	2
Rhetoric (Rhet. 1).....	3	Qualitative Analysis (Chem. 3).....	3
Trigonometry (Math. 4).....	2	Rhetoric 2.....	3
Zoology 1.....	5	Zoology 2.....	5
Military (Mil. 2a).....	1	Military (1, 2b).....	2
Physical Training.....	1	Physical Training.....	1
Total	17	Total	16

SECOND YEAR

German 1 or 4, or Latin ²	4	German 3 or 5 or 6, or Latin ²	4
Zoology 3.....	3	Zoology 6.....	3
Quantitative Analysis (Chem. 5a).....	5	Organic Chem. (Chem. 9, 9c).....	5
Physics 7a, 8a.....	4	Physics 7b, 8b.....	4
Military 2c.....	1	Military 2d.....	1
Total	17	Total	17

THIRD YEAR

German 4.....	4	German 5 or 6.....	4
Histology (Physiology 1).....	5	Physiology 2.....	7
Physiological Chem. (Chem. 15).....	7	Physiology 6.....	3
Psychology 1.....	3	Medical Bacteriology (Bacteriology 26).....	5
Total	19	Total	19

FOURTH YEAR

No group requirements are *prescribed* for students who have completed the three years' course and desire to remain at the University the fourth year. Selection from the following courses is recommended: Bacteriology; Chemistry 5b, 5c, 9a, 9b, 14a-14b, 21, 22, 31, 106,

¹Semester hours. For definition, see page 263.

²If Latin has not been offered for entrance.

and 106; Entomology 2, 3; Physiology 5a-5b; Psychology 113; Zoology 7, 8a-8b, 13, 14a-14b; modern languages; and studies included in Group 6 of the general course in science. Upon the completion of this fourth year, the student takes his baccalaureate degree before going to the college of medicine.

FARM ORGANIZATION AND MANAGEMENT

Students taking this course will be enrolled in the College of Agriculture and will receive the degree of Bachelor of Science from that College.

FIRST YEAR

<i>Prescribed Subjects</i>	<i>Hours</i>	<i>Prescribed Subjects</i>	<i>Hours</i>
Chemistry 1.....	5	Chemistry 2 and 3.....	5
Rhetoric 1.....	3	Rhetoric 2.....	3
Agronomy 25.....	4	Animal Husbandry 5.....	3
Horticulture 1a.....	2	Dairy Husbandry 3.....	1
Agricultural Extension 4.....	1½	Horticulture 1b.....	2
Military	1	Agricultural Extension 4.....	1½
Physical Training.....	1	Military	2
		Physical Training.....	1

SECOND YEAR

<i>Prescribed Subjects</i>	<i>Hours</i>	<i>Prescribed Subjects</i>	<i>Hours</i>
Animal Husbandry 6.....	3	Agronomy 26.....	3
Military 2.....	1	Military 2.....	1

In addition to the above courses the following are also prescribed:

	<i>Hours</i>
Accountancy 11.....	2
Economics 2 or 1.....	2-5
Economics 16 (Sec. C).....	3
Economics 22.....	3
Economics 23.....	2
Economics 26.....	3
	16-19 hours
Elective economics, minimum of.....	6
	22-25 hours
Farm Management 1.....	3
English 20.....	4
Philosophy 1.....	3
	10
	10 hours
Elective science minimum.....	15
Elective agriculture minimum.....	28
	43
	43 hours
Total prescribed.....	117-120 hours

Sufficient open electives should be chosen to complete the 130 hours required for graduation.

To avoid conflicts with other prescribed work it is suggested that the courses in economics, accountancy, and farm management be taken in the following order:

SECOND YEAR

Economics 26.....	3	Economics 22.....	3
Economics 2.....	2	Economics 16 (Sec. C).....	3

THIRD YEAR

Accountancy 11.....	2	Economics 14.....	2
		Farm Management 1.....	3

FOURTH YEAR

Economics 15.....	2	Economics 17.....	2
		Economics 23.....	3

COURSE IN CHEMISTRY

Students who follow the General Course in the College of Liberal Arts and Sciences with chemistry as a major subject are eligible for the degree of Bachelor of Arts.

For the more specialized training of the chemist the following course, largely prescribed, has been arranged. It leads to the degree of Bachelor of Science in chemistry.

Preliminary preparation in German equivalent to two years of high-school work or one year of university work is advised. Students who are unable to offer this may take German 1 and 3 in the freshman year, but will be required to take German 4 and 5 or 6 in place of other electives.

FIRST SEMESTER		FIRST YEAR	SECOND SEMESTER	
	S. H. ¹			S. H. ¹
General Elementary Chemistry (Chem. 1).....	5	Analytical Geometry (Math. 6).....	5	
Trigonometry (Math. 4).....	2	Descriptive Inorganic Chemistry (Chem. 2).....	2	
Advanced Algebra (Math. 2).....	3	Qualitative Analysis (Chem. 3).....	3	
German 4.....	4	German 5 or 6.....	4	
Military (Mil. 2a).....	1	Military 2b.....	1	
Gymnasium (Phys. Tr.).....	1	Drill Regulations (Mil. 1).....	1	
	—	Gymnasium (Phys. Tr.).....	1	
Total.....	16	Total.....	17	

SECOND YEAR			
French 1a.....	4	French 1b.....	4
Quantitative Anal. (Chem. 5a).....	5	Advanced Anal. Chem. (Chem. 5b).....	5
Physics 1a, 3a.....	5	Rhetoric 2.....	3
Rhetoric 1.....	3	Physics 1b, 3b.....	4
Military (Mil. 2c).....	1	Military (Mil. 2d).....	1
<hr/>		<hr/>	
Total.....	18	Total	17

THIRD YEAR			
Mineralogy (Geology 5).....	5	Organic Chemistry (Chem. 14b, 9b).....	5
Organic Chemistry (Chem. 14a, 9a).....	5	Physical Chem. (Chem. 31, 33).....	5
Journal Meeting (Chem. 92a).....	1	Journal Meeting (Chem. 92b).....	1
Economics	2	Electives	3
Differential and Integral Calculus (Math. 8).....	5	English 1-2 or History 3a-3b.....	4
Total.....	18	Total.....	18

FOURTH YEAR			
Journal Meeting (Chem. 93a).....	1	Journal Meeting (Chem. 93b).....	1
Thesis (Chem. 11a).....	5	Ind. Chem. (Chem. 61 or Chem. 6).....	2
Electives in chemistry.....	5	Thesis (Chem. 11b).....	5
Electives, history, economics, or equivalent.....	5	Electives	8
Total	16	Total.....	16

The electives of the junior year and ten hours of the electives of the senior year must be taken elsewhere than in the department of chemistry. Some biological subject, philosophy, history, and economics are recommended.

COURSE IN CHEMICAL ENGINEERING

The work of the technical chemist or superintendent is frequently so closely associated with mechanical and other engineering lines as to make a knowledge of these subjects essential. To meet these conditions, the following four-year course in chemistry and related engineering subjects has been arranged. The degree given is that of Bachelor of Science in chemical engineering.

Preliminary preparation in German equivalent to two years of high school or one year of university work is *prescribed*. It is also advised that students

¹Semester hours. For definition, see page 263.

intending to take this course be prepared to offer mechanical drawing and manual training for entrance.

Where this preliminary training is lacking, students are advised, if possible, to register in shop work and general engineering drawing during the early years of their course.

FIRST YEAR		SECOND YEAR	
FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
General Elementary Chemistry (Chem. 1).....	5	Analytical Geometry (Math. 6).....	5
Trigonometry (Math. 4).....	2	Descriptive Inorganic Chemistry (Chem. 2).....	2
Advanced Algebra (Math. 2).....	3	Qualitative Analysis (Chem. 3).....	3
German 4.....	4	German 5 or 6.....	4
Military 2a.....	1	Military (Mil. 2b).....	1
Gymnasium (Phys. Tr.).....	1	Drill Regulations (Mil. 1).....	1
		Gymnasium (Phys. Tr.).....	1
<hr/> Total.....	16	<hr/> Total.....	17
SECOND YEAR			
Differential and Integral Calculus (Math. 8).....	5	Analytical Mech. (T. & A. M. 20).....	3
Quantitative Anal. (Chem. 5a).....	5	Advanced Analytical Chemistry (Chem. 5b).....	5
Physics 1a, 3a.....	5	Rhetoric 2.....	3
Rhetoric 1.....	3	Physics 1b, 3b.....	4
Military (Mil. 2c).....	1	Economics 22.....	3
		Military (Mil. 2d).....	1
<hr/> Total.....	19	<hr/> Total.....	19
THIRD YEAR			
Gas and Fuel Anal. (Chem. 65).....	2	Physical Chem. (Chem. 31, 33).....	5
Mineralogy (Geol. 5).....	5	Organic Chem. (Chem. 14b, 9b).....	5
Analytical Mech. (T. & A. M. 21).....	2½	Dynamo Electric Machinery (E. E. 16).....	4
Resistance of Mater. (T. & A. M. 25).....	3½	Journal Meeting (Chem. 92b).....	1
Organic Chem. (Chem. 14a, 9a).....	5		
Journal Meeting (Chem. 92a).....	1		
<hr/> Total.....	19	<hr/> Total.....	15
FOURTH YEAR			
Met. Lab. and Assaying (Chem. 69).....	2	Electives in chemistry.....	3
Electro-chemistry (Chem. 35).....	3	Thesis (Chem. 11b).....	5
Alternating Currents (E. E. 6).....	2	Chemical Technology (Chem. 6).....	2
Metallurgy (Chem. 7).....	3	Industrial Chemical Lab. (Chem. 61).....	2
Thesis (Chem. 11a).....	5	Journal Meeting (Chem. 93b).....	1
Journal Meeting (Chem. 93a).....	1	Economics or philosophy.....	3
<hr/> Totals.....	16	<hr/> Totals.....	16

COURSES IN CERAMICS AND CERAMIC ENGINEERING

To graduate with the degree of Bachelor of Science in ceramics the student must follow one of the courses outlined below. The conditions are such that little election can be allowed.

Special courses will be arranged for those who wish a limited amount of work in ceramics, but those pursuing them will not be entitled to a degree and will not be recognized as graduates.

N. B.—Beginning July 1, 1915, the courses in Ceramics and Ceramic Engineering will be transferred to the College of Engineering and remodeled to bring them into conformity to the other courses in that College.

Course in Ceramics

FIRST SEMESTER		FIRST YEAR	SECOND SEMESTER	
	S. H. ¹			S. H. ¹
Chemistry 1b.....	4	Chemistry 4.....	4	
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5	3
Math. 4—Trigonometry.....	2	G. E. D. 2—Descriptive Geometry.....	4	3
General Engineering Drawing 1.....	4	Rhetoric 2.....	3	
Rhetoric 1.....	3	Military 2b—Military Drill.....	1	1
Mil. 2a—Military Drill.....	1	Mil. 1—Drill Regulations.....	1	1
Ph. Tr. 1—Gymnasium.....	1	Ph. Tr. 2—Gymnasium.....	1	1
	<hr/> 18		<hr/> 19	

¹Semester hours. For definition, see page 263.

SECOND YEAR

Physics 1a and 3a.....	5	Physics 1b and 3b.....	4
Chemistry 6a.....	5	Chemistry 5b.....	5
Math. 8 (Calculus).....	5	T. & A. M. 14—Elements of Mechanics... 4	
Military Drill.....	1	Cer. 1—Ceramic Materials.....	3
	16	Military Drill.....	1
			17

THIRD YEAR

German 4 or French 1a or 2a.....	4	German 6 or French 1b or 2b.....	4
Cer. 2—Winning & Preparation.....	3	Cer. 5—Ceramic Bodies.....	5
Cer. 3—Industrial Calculations.....	3	Cer. 12—Designing and Shaping.....	3
T. & A. M. 15—Strength of Materials... 3		Cer. 17—Silicates.....	3
Chemistry 65.....	2	C. E. 96—Surveying.....	2
	15		17

FOURTH YEAR

Geol. 13a—Engineering Geology.....	3	Geol. 13b—Engineering Geology.....	3
Cer. 6—Glazes.....	5	Cer. 8—Glass.....	2
Cer. 10—Cements.....	3	M. E. 2—Steam Engines & Boilers.....	3
Cer. 4—Drying and Burning.....	4	Cer. 9—Ceramic Construction.....	4
Mining 3.....	2	Cer. 11—Thesis.....	5
	17		17

Course in Ceramic Engineering

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
Chemistry 1b.....	4	Chemistry 4.....	4
Math. 2—Adv. Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	G. E. D. 2—Descriptive Geometry.....	4
General Engineering Drawing 1.....	4	Rhetoric 2.....	3
Rhetoric 1.....	3	Mil. 2b—Military Drill.....	1
Mil. 2a—Military Drill.....	1	Mil. 1—Drill Regulations.....	1
Ph. Tr. 1—Gymnasium.....	1	Ph. Tr. 2—Gymnasium.....	1
	18		19

SECOND YEAR

Physics 1a and 3a.....	5	Physics 1a and 3a.....	4
Chemistry 5a.....	5	Chemistry 5b.....	5
Math. 7—Calculus.....	5	Math. 9—Calculus.....	3
Military Drill.....	1	T. & A. M. 20—Elements of Mechanics... 3	
	16	Cer. 1—Ceramic Materials.....	3
		Military Drill.....	1
			19

THIRD YEAR

German 4 or French 1a or 2a.....	4	German 6 or French 1b or 2b.....	4
Cer. 2—Winning & Preparation.....	3	Cer. 5—Ceramic Bodies.....	5
Cer. 3—Industrial Calculations.....	3	Cer. 12—Designing & Shaping.....	3
T. & A. M. 21—Analytical Mechanics... 2		Cer. 17—Silicates.....	3
T. & A. M. 25—Resist. of Materials.....	4	C. E. 96—Surveying.....	2
	16		17

FOURTH YEAR

Geol. 13a—Engineering Geology.....	3	Geol. 13b—Engineering Geology.....	3
Cer. 6—Glazes.....	5	Cer. 9—Ceramic Construction.....	4
Cer. 10—Cements.....	3	Cer. 8—Glass.....	2
Cer. 4—Drying and Burning.....	4	M. E. 2—Steam Engines & Boilers.....	3
Min. 3—Mining Methods.....	2	Cer. 11—Thesis.....	3
	17		15

COMBINED ARTS AND ENGINEERING COURSE

A graduate of the College of Liberal Arts and Sciences whose mathematical training includes the work of the calculus, who has had the usual college course in physics, and sufficient training in the principles of mechanics to enable

¹Semester hours. For definition, see page 263.

him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in the departments of the College of Engineering upon the completion of sixty-eight credit hours in such lines (including thesis) as may be directed by the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should possess special preparation in drawing. The courses in the College of Engineering which may be counted for the degree of A.B. are listed on page 128 above.

PREPARATION OF TEACHERS

For information concerning the preparation of teachers and the recommendation of the University committee on appointments, see page 202.

HONORS

The Honor Degree

The faculty of the College of Liberal Arts and Sciences continues for 1914-15 the system formerly carried on by the College of Literature and Arts of recommending candidates for the degree of Bachelor of Arts with honors in a particular subject, under the following conditions:

1. The amount of work required in the honor subject shall be that required for a major in that subject.

2. The candidate must also offer two minor subjects. Not less than 9 hours will be accepted in either subject, and the aggregate for both subjects must be at least 24 hours.

3. The work done in the minor subjects must be of a distinctly superior quality; grades of at least 85 are required in all the minor subjects; especially poor or careless work in any other subject may, by vote of the faculty, cause the honor degree to be withheld.

4. Each candidate is required to present an acceptable thesis in his major subject; the thesis may be written in connection with some recognized course in the department.

5. The honor subjects at present recognized in this College are as follows: The classics (either the classics as a whole, or Greek or Latin separately), economics, education, English, German, French, history, mathematics, philosophy, political science, psychology, sociology. The specific requirements for honors in particular subjects are stated in connection with the description of courses for the several departments beginning on page 261 below.

The purpose of these honors is not to encourage premature specialization, but to give special recognition to students who have pursued with success correlated courses of study, and to emphasize the importance, for scholarship in any subject, of thorough training in other related subjects. Candidates should announce their intention as early as possible in their college course and consult freely with the head of the department concerned in regard to the selection of their studies.

Preliminary Honors

The University regulations regarding preliminary honors are stated above, page 94.

Freshman Honors

At the close of each year a list of those members of the freshman class who have made an especially good record in scholarship is prepared. The names of such students are announced at an assembly of the College; notice is also sent in each case to the parent or guardian, and to the principal of the high school of which the student is a graduate.

Honorary Societies

For information concerning the honorary societies represented in the University, see page 111.

THE COLLEGE OF ENGINEERING

For a description of the *buildings* used by this College, see page 51; for collections belonging to it (architecture, civil engineering, electrical engineering, mechanical engineering, and railway engineering), see page 60; for *clubs* and *societies auxiliary to its course of study*, see page 112; for *fees*, see page 118; for *honors*, see page 94; for *honorary societies*, see page 111.

GENERAL STATEMENT

The purpose of the College is to train men for the profession of engineering. In arranging its courses of study and practise, cultural subjects are interwoven with the theoretical subjects which underlie and reinforce the practical developments of the several departments. The instruction of the classroom and the practise afforded by the library, the drafting-room, and the laboratory proceed hand in hand. Throughout his course the student works upon problems and proceeds by methods similar to those which enter into the experience of the practising engineer.

ADMISSION

See the general statement of the entrance requirements of the University, pages 69 to 91.

SPECIAL STUDENTS

See the statement of the general regulations of the University in regard to special students, page 75.

DESCRIPTION OF DEPARTMENTS

The College of Engineering comprises the following departments:*

DEPARTMENT OF ARCHITECTURE, with courses in—

Architecture

Architectural Engineering

DEPARTMENT OF CIVIL ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

DEPARTMENT OF MINING ENGINEERING

DEPARTMENT OF MUNICIPAL AND SANITARY ENGINEERING

DEPARTMENT OF THEORETICAL AND APPLIED MECHANICS

DEPARTMENT OF PHYSICS

DEPARTMENT OF RAILWAY ENGINEERING,† with courses in—

Railway Civil Engineering

Railway Electrical Engineering

Railway Mechanical Engineering

*After July 1, 1915, the Department of Ceramics will become a department in the College of Engineering.

†The School of Railway Engineering and Administration offers, in addition to the three courses named here, courses in railway transportation and railway traffic and accounting under the direction of the department of economics of the College of Liberal Arts and Sciences. See pages 138-139 above.

ARCHITECTURE

The department of architecture offers two courses leading to the first degree, the course in architecture and the course in architectural engineering. The aim of these courses is to give the broadest preparation for the practise of architecture.

The course in architecture aims primarily to train the student to produce correct, thoughtful, and beautiful works of architecture. The schedule of studies includes a broad field of liberal and scientific subjects to supply the background for creative work and to give a knowledge of the principles involved in the processes of safe and economical construction. The course also includes much freehand drawing for the purpose of training the eye to recognize correct proportion and training the hand to skillful and rapid drawing. The main portion of the course, however, consists of the study of architectural forms and principles and their application in architectural design.

The course in architectural engineering gives a thorough groundwork in mathematics and applied mechanics, and includes such studies as strength of materials, bridge, mill, and tall building construction, reinforced concrete, etc. The general principles of these subjects are applied to all forms of building construction in a course given in the senior year, known as architectural engineering. While specializing in construction, this course includes also the study of the forms and principles of architecture through such subjects as free-hand drawing, architectural history, architectural drawing, and architectural design.

Both courses in architecture prepare the student for the examinations of the Illinois State Board of Examiners of Architects, and graduates of the department are exempt from examinations required for entrance into the American Institute of Architects, and from the preliminary examination for the prize in Architecture of the American Academy at Rome. The Plym Fellowship in Architecture is awarded annually to a graduate of the department. This prize amounts to \$1,000 and provides for one year of travel for the study of architecture abroad. It is awarded by competition.

Students intending to take up the study of architecture should take free-hand and mechanical drawing and general history in high school.

Equipment

The collections of rendered and working drawings, lantern slides, plates, photographs, casts, specimens of American woods, building materials, and appliances are noted under "Collections" on page 60. A Zeiss epidiascope is used for direct projection of photographs, colored plates, etc., and a double electric lantern for projecting two pictures on the screen at once for comparative study. Geometrical and architectural models are lighted by a light fixed at the conventional angle for demonstration of the subjects of shades and shadows and conventional rendering. Wall space in the corridors of the department and in all drafting rooms has been prepared for exhibition purposes, and collections of drawings are constantly displayed. The department occupies the entire fourth floor of Engineering Hall, and a large part of the third; its quarters include drafting rooms for undergraduate and graduate work, library, lecture rooms, studios for free-hand drawing, etc.

CIVIL ENGINEERING

The purpose of this department is to furnish a course of theoretical instruction, accompanied and illustrated by a large amount of practise. While the

instruction aims to be practical by giving the student information and practise directly applicable in his future professional work, the prime object is the development of the mental faculties. The power to acquire information and the ability to use it are held to be of greater value than any amount of so-called practical knowledge.

Equipment

This department has an equipment of compasses, engineers' transits, solar transits, levels—ordinary and precise—plane tables and sextants, as well as a collection of structural shapes, including full-sized joints of an actual railroad bridge, sections of columns, eye-bars, etc., and also photographs and blue-prints of bridges and buildings.

The *cement laboratory* occupies a room in the Mechanical Engineering Laboratory, and is provided with slate tables, testing machines, molding machines, sieves, etc., and sample barrels of hydraulic cement, varieties of sand, and other necessary materials.

The *road laboratory* occupies a room in the Mechanical Engineering Laboratory, and is provided with machines for testing the resistance of macadam material to impact and abrasion and for making the cementation test. The laboratory is also supplied with rattlers and other devices for testing paving material; and with equipment for testing oils, tars, and asphalts.

ELECTRICAL ENGINEERING

This department provides a course of study in theoretical and applied electricity. The first two years of work are substantially the same as in the other engineering courses, including practical work in drafting room and shop, as well as instruction in the fundamental principles of mathematics and physics. With the third year the fundamental studies relate more directly to electrical engineering. A course in dynamo machinery is followed by the theory of alternating currents, while laboratory and design courses emphasize underlying principles. Technical courses cover the generation, transmission, and distribution of electric power, and its various applications. In the laboratory a study of dynamo characteristics is followed in the fourth year by progressive experiments involving the operation of electrical machinery in principle and practise. Investigation of the problems of power distribution is a feature of advanced laboratory and thesis work.

Equipment

The 500-kilowatt power plant of the University supplies the electrical engineering laboratory with the current needed for its operation.

The power equipment in the electrical engineering laboratory includes forty direct current machines with a total capacity of 375 kilowatts, twenty alternating current machines with a total capacity of 300 kilowatts, and fifty transformers with a total capacity of 350 kilowatts. A 17-panel experimental switchboard affords adequate distribution and control.

The instrument room contains standards for the calibration of commercial instruments of all types. There are two hundred and fifty portable instruments for experimental work. A new 240 ampere-hour storage battery has been installed. The graduate laboratory contains apparatus for research work, includ-

ing four oscillographs, one 2,000-cycle alternator, one 200,000-volt transformer, one 1,000-ampere direct current generator, and apparatus for high voltage direct current investigations. The photometer room contains apparatus for tests of the various light sources. Two special 100-line switchboards are connected with cables and apparatus for experiments in telephony. The equipment for electrometallurgical work includes one 30-kilowatt induction furnace, one 25-kilowatt arc furnace, two 30-kilowatt resistance furnaces, one 15-kilowatt vacuum furnace for melting, one 30-kilowatt vacuum furnace for annealing, and one 1.5 kilowatt muffle furnace.

MECHANICAL ENGINEERING

The courses in mechanical engineering are planned to present the theory and practise involved in the generation and transmission of power, and in the design, construction, operation, and testing of machinery of all kinds.

Equipment

To supplement and amplify the theoretical work of the class room, the department is provided with designing rooms and laboratories as follows:

The Designing Rooms are equipped with drawing tables, and are supplied with reference books, files of trade catalogs, gear charts, and collections of blue-prints. A collection of kinematic models, sectional steam specialties, lantern slides, and photographs is also available.

The Mechanical Engineering Laboratory is equipped with machines and testing instruments for instruction in steam engineering, gas power engineering, refrigeration, heating, and ventilation. Among the more important pieces of apparatus are the 210-h. p. experimental boiler, equipped with chain-grate stoker, fuel economizer, and induced draft; a separately fired steam superheater; a number of types of throttling, high speed automatic, and Corliss steam engines; several steam condensers; a compound two-stage air compressor; a large compound duplex steam pump; a Kerr steam turbine; a DeLaval turbopump; a 200,000-lb. Lea water-flow; a 10-ton ammonia compression refrigerating machine; a number of typical gas, gasoline, and oil engines; a 50-h. p. suction gas producer, and several house-heating boilers and furnaces. The central heating and power plant contains a variety of types of boilers, stokers, pumps, and engines in commercial service.

The Shop Laboratories are provided with suitable machinery and apparatus to illustrate the several shop processes involved in the manufacture of machinery. In these laboratories emphasis is given to the engineering principles involved in machine construction and to the important problems of scientific shop management. These laboratories include the *Wood Shop* with an equipment of benches, lathes, machinery, and small tools needed in pattern construction; the *Foundry* equipped with cupola, brass furnaces, core ovens, molding machines, and facilities for bench and floor molding; the *Forge Shop* equipped with forges, anvils and small tools, a steam hammer, a power-driven punch and shear, and with gas and electric furnaces; and the *Machine Shop* with an equipment of lathes, planers, shapers, milling machines, grinders, boring mills, drill presses, and with typical small tools and fixtures used in manufacturing.

MECHANICS, THEORETICAL AND APPLIED

The courses in theoretical and applied mechanics are designed to meet the needs of the students of engineering.

The *Laboratory of Applied Mechanics* comprises the materials testing laboratory and the hydraulics laboratory. The equipment of the materials testing laboratory includes testing machines and accessory apparatus for making physical tests of materials of construction, such as tension, compression, flexure, shearing, torsion, hardness, and impact tests, and tests under repeated load. The laboratory contains machines of large capacity for testing full size structural and machine members. Among these is a universal machine of 600,000-pound capacity. The hydraulics laboratory has facilities for furnishing water under a large range of pressures and volumes. There is an excellent equipment of devices for measuring and recording the flow of water, including measuring pits, water meters, weir channels, nozzles, pitometer, and Venturi meters. In the equipment are a variety of pumps, a standpipe, several water motors, and a turbine water wheel for testing purposes. A sufficient supply of pressure gauges, weighing scales and other auxiliary apparatus is provided.

MINING ENGINEERING

The department of mining engineering offers courses of instruction relating to the science and practise of mining and metallurgy to train men for the various phases of the mineral industry.

The work of the department adds to the usual preliminary courses in mathematics, languages, chemistry, physics, geology, and general engineering, specialized work in mining, such as mine surveying, mining methods, mine ventilation, mining machinery, coal washing and ore concentration, metallurgy, utilization of fuels, administration and organization of mines, mining law, and the design of mining and metallurgical structures.

In addition to its work of instruction, the department concerns itself with the development and dissemination of such scientific facts as are likely to be of service in improving the practise of mining, with reference to efficiency in operation, to the security of life in the mines, and to the conservation of the mineral resources of the State.

Equipment

The drawing rooms contain the catalogs of the manufacturers of mining machinery with a complete card index, the standard reference books on mine drafting, models of mine structures, and a collection of blue-prints and drawings of mine structures.

The mine-gas and safety-lamp laboratory contains safety lamps of different types, electric and magnetic locking appliances, a photometer, a dark room for photometric work, Ryan, Oldham and Hailwood safety-lamp testing apparatus, and appliances for gas and dust analysis and explosibility tests.

The coal washing and ore dressing laboratory contains for crushing, rolls, gyratory and jaw crushers, and a 500-pound 3-stamp battery; for screening and sizing, trommels, shaking and vibrating screens, and V boxes; for concentrating and cleaning, pan, piston and pulsating jigs, bumping table, vanner, concentrating table, and slimer. These machines can handle from 3 to 5 tons of coal and one ton of ore an hour. There is also a complete sampling and

drying equipment, a cyanide testing plant, a Huff electrostatic machine, and other small appliances used for preliminary testing. Adjoining this laboratory is a chemical and assay laboratory equipped for the analytical work required in connection with coal washing and ore concentration.

The explosives and drilling laboratory contains the principal types of rock and coal drills, a diamond drill, chain and puncher, coal cutters, and a complete outfit for demonstrating the use of explosives.

MINE RESCUE STATION AND LABORATORIES

Cooperating with the department of mining engineering and with the State Geological Survey, the Federal Government in 1909 established at the University a mine rescue station in charge of a resident mining engineer. The purpose of the station was to interest all connected with the mining industry in such modern appliances as breathing and resuscitation apparatus, as part of the normal equipment of mines. At the station mine bosses and others were trained in the use of such apparatus, this service being rendered freely to all who desired the benefits thereof.

A direct outcome of the cooperative rescue station has been the establishment of a comprehensive mine rescue service by the State of Illinois. This state service has rendered unnecessary the maintenance of the cooperative rescue station in Urbana. The station is now maintained by the University, for the training of students, but the Bureau of Mines keeps certain apparatus on exhibition.

The Cooperative Investigation of Illinois mining conditions is another direct outgrowth of the mine rescue station. This cooperation between the University of Illinois, the Illinois State Geological Survey and the United States Bureau of Mines has for the past three years carried on an investigation of the coal resources and the mining practise in the state.

A laboratory has been maintained by the Cooperation for the study of mine dusts and mine gases. This laboratory is also available for the use of mining classes in the University. The Bureau of Mines has stationed in Urbana a resident mining engineer and a chemist.

MUNICIPAL AND SANITARY ENGINEERING

This course is designed to train for the varied duties of the engineer employed on the design, construction, and operation of public works and public utilities, and for general engineering work.

The methods of training are intended to develop power to take up and solve new problems connected with municipal public works, as well as to design and to superintend the ordinary constructions. Surveying, structural materials, and structural design are taught as in the civil engineering course. Chemistry and bacteriology are given so far as is necessary to a comprehension of the questions involved in water supply and sewage disposal; and instruction is given in mechanical and electrical engineering in the generation and transmission of power.

PHYSICS

The department of physics occupies the Laboratory of Physics. This building supplies facilities and equipment for instruction and investigation in phys

ics. Gas, distilled water, compressed air and vacuum, and direct and alternating electric currents of a wide range in amperes and in volts are available in all parts of the building. There is a collection of over 4,000 pieces of apparatus for the courses of instruction offered and also for advanced work, and only a small part of the equipment is antiquated. New investigations can usually be started with the apparatus on hand. There are two workshops, one for the advanced students and instructors, and one for the mechanics of the department. The students' shop is equipped with lathes, drill press, bench tools, etc. The mechanics' shop contains lathes, milling machines, drill press, and other facilities for fine machine work.

The University library contains all the important sets of journals of physics and the related sciences in English, French, and German. The recent volumes of the physical journals, together with a collection of text-books, encyclopedias, dictionaries, and other reference books, are also found in the special library of the Laboratory.

RAILWAY ENGINEERING*

The department of railway engineering is organized to serve those who wish to prepare themselves for service in the technical departments of railways. The course in railway civil engineering adds to the fundamentals of a well-rounded engineering course a group of special subjects which concern the location, construction, and maintenance of railways. The course in railway electrical engineering deals with the design and construction of electric railway equipment; the operation and performance of electric cars and locomotives; and the development of the more general problems which arise in the electrification of existing steam lines. The course in railway mechanical engineering is intended to meet the requirements of those who are especially interested in steam railroad equipment. It deals with the design, construction, and maintenance of various types of railway cars; with conditions affecting train resistance; with the design and operation of steam locomotives; and with tests disclosing their performance.

Equipment

Three steam roads—the Illinois Central, the Cleveland, Cincinnati, Chicago & St. Louis, and the Wabash railroads—and two electric interurban roads—the Illinois Traction System and the Kankakee and Urbana railway—enter Champaign and Urbana. The department enjoys the interest and cooperation of the officers of these railways, and is afforded by their courtesy numerous opportunities for practical road tests and field work. The division shops of the C., C., C. & St. L. railroad are located at Urbana and provide additional opportunity for similar work.

The department owns and operates, jointly with the Illinois Central Railroad, a railway test car designed for experimental work on steam roads. It is fully equipped for making train resistance and locomotive performance tests, and during the last eleven years has been in frequent operation in carrying on resistance and tonnage rating tests on the Illinois Central Railroad and on several eastern roads.

For work on electric roads the department owns also an electric test car, of the interurban type, especially designed and built for the University for

*See also School of Railway Engineering and Administration, page 205.

experimental work. It is equipped with four 50 horse-power direct current motors and with the Westinghouse multiple control system, and is provided with instruments for recording power, speed, acceleration, and the other data needed in road tests. Through the courtesy of the Illinois Traction System this car is operated on its lines, which enter the campus of the University.

The department laboratory equipment includes a drop-testing machine and a brake-shoe testing machine, both constructed in accordance with the standards of the Master Car Builders Association. The drop-testing machine is designed for use in testing the strength of railroad rails, car axles, car couplers, and draft gears; and may be used in studies of the physical properties of structural materials of any sort. The brake-shoe testing machine supplies means for determining the wearing properties and frictional qualities of brake-shoes, such as are employed in regular service on railroad trains.

A locomotive testing plant, equipped from the original designs of the department, occupies a building 40 by 115 feet. The plant is devoted exclusively to making tests to determine the performance of locomotives. The locomotives tested are furnished by certain western railroad systems under an arrangement which insures the maintenance in the plant of a locomotive of latest design.

Much of the work in the railway courses is given in the departments of civil, electrical, and mechanical engineering, and the shop and laboratory equipment of these departments is available for students of the railway department.

APPROVED NON-TECHNICAL ELECTIVES

The following is a list of approved non-technical electives for students in the College of Engineering. In general, prerequisites must be observed.

Accountancy 10; Astronomy 3, 6, 7; Botany 5; Chemistry 16, 5a or 13a, 10b, 6, 7, 8, 31, 35, 65, 66, 69, 77, 78; Economics 1, 2, 3, 10, 12, 21, 25, 41; Education 1, 2, 16, 25, 41; English, any intermediate or advanced courses; French, any advanced courses; Geology 2, 5a, 13a, 13b, 14, 24; (for students in mining any course in geology for which student has prerequisite); German, any third or fourth year courses; History 3; Italian 2; Mathematics 10, 16, 17, 19, 21, 23, 27; Philosophy 1, 17; Psychology 1, 2, 3, 4; Physics 14, 16, 17, 19, 21, 23, 27; Political Science 1, 3, 4; Rhetoric 17; Spanish 3, 4; Sociology 1, 3.

SUMMER READING

All engineering students not graduates of a literary college are required to complete prescribed courses of reading of a non-professional character during the summer vacations following the freshmen and sophomore years. The purpose of the summer reading is to increase the acquaintance of the student with literature, history, and general science, to develop in him a taste for such reading, and to impress him with the importance of such knowledge not only as a source of individual enjoyment, but as a practical aid to engineers in their social and business relations.

A circular on summer reading is issued, containing a list of books from which the student may choose. The books have been selected for their value in providing general training, but an attempt has been made to include only readable and attractive works. A statement of the books read during the summer is required at the beginning of the next college year.

GENERAL ENGINEERING LECTURES FOR FRESHMEN

One general lecture, sufficiently popular in character to interest and inspire young engineers, will be given each week. All freshman engineers are expected to attend this lecture.

TRIPS OF INSPECTION

Beginning with the academic year 1915-1916, inspection trips, which have heretofore been optional with students in the College of Engineering, will become one of the regular requirements in the senior year of the course leading to the degree of Bachelor of Science in architecture, architectural engineering, civil engineering, electrical engineering, mechanical engineering, mining engineering, and municipal and sanitary engineering. Such trips are required because it is believed that the educational advantage resulting from an inspection of large industrial enterprises fully justifies the time and expense involved.

The time required for these trips is three or four days, and the plants visited are usually in Chicago or Milwaukee. The trips are taken during term time under the supervision of University authorities. The expense of these trips to each student is small, varying from \$15.00 to \$25.00.

COURSES OF STUDY AND DEGREES

The courses of study leading to the degree of Bachelor of Science in the College of Engineering, as scheduled for the year 1914-15, are given herewith in full. Each of the ten courses given may ordinarily be completed in a period of four years.

A graduate of the University of Illinois in architectural, civil, electrical, mechanical, mining, municipal and sanitary, or railway engineering may receive the degree of an allied course upon the completion of from thirty to thirty-six semester hours of work approved by the faculty. This work may ordinarily be done in one academic year.

A graduate of the College of Liberal Arts and Sciences of the University of Illinois, or of any college of equal standing, whose mathematical training includes the work of the calculus, who has had the usual course in physics, and who has had sufficient training in the principles of mechanics to enable him to begin the mechanics of the junior year, may receive the degree of Bachelor of Science in Engineering upon the completion of sixty-eight credit hours of work in engineering under the direction of the faculty. This work may ordinarily be done in two academic years. Candidates for the degree in the department of architecture are not required to be prepared in calculus or mechanics, but should have special preparation in drawing.

Course in Architecture

FIRST SEMESTER		FIRST YEAR	SECOND SEMESTER	
		S. H. ¹		
Arch. 31 ² —Arch. and Freehand Drawing..	4		Arch. 32—Arch. and Freehand Drawing..	4
G. E. D. 2—Descriptive Geometry.....	4		Chem. 1a ³ or 1b—Inorganic Chemistry...	4
Math. 2—Advanced Algebra.....	3		Rhet. 2 (1)—Rhetoric and Themes.....	3
Math. 4—Trigonometry	2		T. & A. M. 14—Elem. Mechanics.....	4
Rhetoric 1—Rhetoric and Themes.....	3		Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1		Mil. 2b—Military Drill.....	1
Phys. Tr. 1—Gymnasium	1		Phys. Tr. 2—Gymnasium.....	1
Total.....	18		Total.....	18
		Summer Reading, 50 points		

¹Semester hours. For definition, see page 263.

²The numbers refer to courses in the Description of Courses, page 261.

³Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a.

SECOND YEAR

Arch. 13—History of Architecture.....	2	Arch. 14—History of Architecture.....	2
Arch. 23—Freehand Drawing.....	2	Arch. 24—Freehand Drawing.....	2
Arch. 33—Design	3	Arch. 34—Design	3
Arch. 43—Working Drawings	3	Arch. 44—Working Drawings.....	3
Phys. 9a—Physics Lectures.....	2	Phys. 9b—Physics Lectures.....	2
Phys. 10a—Physics Laboratory.....	2	Phys. 10b—Physics Laboratory.....	2
T. & A. M. 15—Strength of Materials....	3	T. & A. M. 16—Strength of Materials....	3
Mil. 2c—Military Drill.....	1	Mil. 2d—Military Drill.....	1
Total.....	18	Total.....	18

Summer Reading, 50 points

THIRD YEAR

Arch. 15—History of Architecture.....	2	Arch. 16—History of Architecture.....	2
Arch. 25—Freehand Drawing.....	2	Arch. 26—Freehand Drawing	2
Arch. 35—Design	5	Arch. 36—Design	5
Arch. 45—Graphic Statics.....	3	Arch. 46—Graphic Statics	3
Arch. 55—Building Sanitation	1	Arch. 66—Theory of Architecture.....	1
Arch. 65—Theory of Architecture.....	1	E. E. 9—Building Illumination.....	1
French or German.....	4	French or German.....	4
Total.....	18	Total.....	18

FOURTH YEAR

Arch. 27—Freehand Drawing	2	Arch. 28—Freehand Drawing	2
Arch. 37—Design	7	Arch. 38—Advanced Design or Thesis....	7
Arch. 67—Theory of Form and Color....	2	Arch. 60—Estimating	1
Econ. 2—Principles of Economics.....	3	Arch. 68—Specifications	3
M. E. 25—Heating and Ventilation.....	2	Elective	3
Elective	3	Total.....	16
Total.....	18		

Course in Architectural Engineering as Taught in 1914-15

The following schedule does not show the full course for 1915, but indicates the work each class must take in 1914-15, during the transition from the old to the new course. This schedule cannot be used for checking up a student's previous work in his course or planning the work of subsequent years.

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
A. E. 31 ² —Arch. and Freehand Drawing..	4	G. E. D. 2 ² —Descriptive Geometry.....	4
Language	4	Language	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Trigonometry	2	Rhet. 2 (1)—Rhetoric and Themes.....	3
Rhet. 1—Rhetoric and Themes.....	3	Mil. 1—Drill Regulations.....	1
Mil. 2a—Drill	1	Mil. 2b—Drill	1
Phys. Train. 1—Gymnasium.....	1	Phys. Train. 2—Gymnasium.....	1
Total.....	18	Total.....	19

SECOND YEAR

Arch. 13 (6)—History of Architecture....	2	Arch. 14 (6)—History of Architecture....	2
A. E. 33—Elementary Design.....	3	A. E. 34—Elementary Design.....	3
A. E. 43—Working Drawings.....	3	A. E. 44—Working Drawings.....	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lectures.....	3	Physics 1b—Physics Lectures.....	2
Phys. 8a—Physics Laboratory.....	2	Physics 8b—Physics Laboratory.....	2
Mil. 2c—Drill	1	T. & A. M. 20—Analytical Mechanics....	3
		Mil. 2d—Drill	1
Total.....	18	Total.....	18

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

THIRD YEAR

Arch. 6a—History of Architecture.....	4
Arch. 11a—Architectural Seminar.....	1
A. E. 45—Graphic Statics.....	3
Chem. 1a or 1b—Inorganic Chemistry.....	4
Econ. 2—Principles of Economics.....	2
T. & A. M. 25 (9)—Res. of Materials.....	4
Total.....	18

Arch. 6b—History of Architecture.....	4
Arch. 11b—Architectural Seminar.....	1
A. E. 46 (5)—Graphic Statics.....	3
Non-technical Elective.....	2
M. E. 2 (11)—Steam Engines and Boilers	3
T. & A. M. 26 (8)—Analytical Mech.....	4
Total.....	17

FOURTH YEAR

Arch. 19a—Architectural Engineering....	3
Arch. 30a—Thesis or approved elective....	1
Arch. 34a—Arch. Eng. Sem.....	1
C. E. 12—Bridge Analysis.....	2
C. E. 13—Bridge Details.....	2
C. E. 24—Metal Structures.....	1
Non-technical Elective.....	1
M. E. 67—Mech. Eng. Lab.....	1
M. E. 26—Heating and Ventilation.....	3
Total.....	15

Arch. 19b—Architectural Engineering....	3
Arch. 30b—Thesis or approved elective....	3
Arch. 68—Specifications.....	3
C. E. 6c—Masonry and Reinf. Con. Design	2
C. E. 14a—Bridge Design.....	2
E. E. 9—Electric Lighting.....	1
Non-technical Elective.....	1
Total.....	15

Course in Architectural Engineering as Taught in 1915-16

FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER

S. H.¹

A. E. 31 ² —Arch. and Freehand Drawing..	4
Language.....	4
Math. 2—Advanced Algebra.....	3
Math. 4—Trigonometry.....	2
Rhet. 1—Rhetoric and Themes.....	3
Mil. 2a—Military Drill.....	1
Phys. Tr. 1—Gymnasium.....	1
Total.....	18

SECOND SEMESTER

S. II.¹

G. E. D. 2—Descriptive Geometry.....	4
Language.....	4
Math. 6—Analytical Geometry.....	5
Rhet. 2—Rhetoric and Themes.....	3
Mil. 1—Drill Regulations.....	1
Mil. 2b—Military Drill.....	1
Phys. Tr. 2—Gymnasium.....	1
Total.....	19

Summer Reading, 50 points

SECOND YEAR FOR THE CLASS OF 1918

Arch. 13—History of Architecture.....	2
A. E. 33—Arch. and Freehand Drawing....	3
A. E. 43—Working Drawings.....	2
Math. 7—Differential Calculus.....	5
Phys. 1a—Physics Lectures.....	3
Phys. 3a—Physics Laboratory.....	2
Mil. 2c—Military Drill.....	1
Total.....	18

Arch. 14—History of Architecture.....	2
A. E. 34—Design.....	3
A. E. 44—Working Drawings.....	2
Math. 9—Integral Calculus.....	3
Phys. 1b—Physics Lectures.....	2
Phys. 3b—Physics Laboratory.....	2
T. & A. M. 20—Analytical Mechanics....	3
Mil. 2d—Military Drill.....	1
Total.....	18

Summer Reading, 50 points

THIRD YEAR FOR THE CLASS OF 1917

Arch. 15 (6)—History of Architecture....	2
A. E. 45 (5)—Graphic Statics.....	3
Chem. 1a or 1b—Inorganic Chemistry.....	4
Non-technical Elective.....	2
Rhet. 1 (1)—Rhetoric and Themes.....	3
T. & A. M. 25 (9)—Resistance of Materials.	4
Total.....	18

Arch. 16 (6)—History of Architecture....	2
A. E. 46 (5)—Graphic Statics.....	3
Chem. 4—Qualitative Analysis.....	4
Non-technical Elective.....	2
Rhet. 2 (1)—Rhetoric and Themes.....	3
T. & A. M. 26 (8)—Analytic Mechanics and Hydraulics.....	4
Total.....	18

FOURTH YEAR FOR THE CLASS OF 1916

Arch. 19a—Arch. Eng.....	3
Arch. 30a—Thesis or approved elective (C. E. 51).....	1
Arch. 34a—Arch. Eng. Seminar.....	1
C. E. 12—Bridge Analysis.....	2
C. E. 13—Bridge Details.....	2
C. E. 24—Metal Structures.....	1
L. A. & S.—Option.....	1
M. E. 67—Mech. Eng. Laboratory.....	1
M. E. 26—Heating and Ventilating.....	3
Total.....	15

Arch. 19b—Arch. Eng.....	3
Arch. 30b—Thesis or approved elective (C. E. 6c).....	3
Arch. 68—Specifications.....	3
C. E. 6c—Masonry and Reinforced Con- crete Design.....	2
C. E. 14a—Bridge Design.....	2
E. E. 9—Electric Lighting.....	1
L. A. & S.—Option.....	1
Total.....	15

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261.

Course in Civil Engineering, as Taught in 1914-15

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	S. H. ¹				S. H. ¹
Chem. 1a ² or 1b—Inorganic Chemistry.....	4	Chem. 2 and 3—Inorganic Chemistry.....	4		
G. E. D. 1—Gen. Eng. Drawing.....	4	G. E. D. 2—Descriptive Geometry.....	4		
Language.....	4	Language.....	4		
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5		
Math. 4—Trigonometry.....	2	Mil. 1—Drill Regulations.....	1		
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....	1		
P. T. 1—Gymnasium.....	1	P. T. 2—Gymnasium.....	1		
Total.....	19	Total.....	20		
		Summer Reading, 50 points			

SECOND YEAR			
C. E. 27—Plane Surveying.....	3	C. E. 28—Higher Surveying.....	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lecture.....	3	Phys. 1b—Physics Lecture.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	2
Mil. 2c—Military Drill.....	1	T. & A. M. 20—Analytic Mechanics.....	3
Elective.....	2	Mil. 2d—Military Drill.....	1
Total.....	19	Elective.....	2
		Total.....	19
		Summer Reading, 50 points	

THIRD YEAR			
Chem. 1b ³ or 1a—Inorganic Chemistry.....	4	C. E. 52—Roads and Pavements.....	3
C. E. 51—Railroad Surveying.....	5	C. E. 60—Structural Stresses.....	4
M. E. 1—Steam Engines and Boilers.....	3	C. E. 62—Structural Details.....	2
T. & A. M. 21—Analytic Mechanics.....	2	C. E. 70—Seminar.....	1
T. & A. M. 29—Resistance of Materials.....	5	T. & A. M. 10—Hydraulics.....	3
Total.....	19	Elective.....	3
		Total.....	16

FOURTH YEAR			
C. E. 5r—Masonry Construction.....	4	C. E. (6b)—Masonry and Reinforced Concrete Design.....	2
C. E. 5l—Cement Laboratory.....	1	C. E. 14—Bridge Design.....	5
C. E. 12—Bridge Analysis.....	2	C. E. 15 ⁴ —Advanced Bridge Analysis.....	2
C. E. 13 ⁴ —Bridge Details.....	2	C. E. 16—Engineering Contracts and Specifications.....	2
C. E. 6a—Theory of Reinforced Concrete.....	1	C. E. 25—Seminar.....	1
C. E. 24—Steel Building Design.....	2	C. E. 30—Thesis*.....	2
Inspection Trip.....	1	M. & S. E. 3—Sewerage.....	3
C. E. (30)—Thesis*.....	1	Total.....	17
M. & S. E. 2—Water Supply Engineering.....	4		
Total.....	17		

Course in Civil Engineering as Taught in 1915-16

FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
Chem. 1a or 1b—Inorganic Chemistry.....	4	Chem. 2 & 3—Inorganic Chemistry.....	4
G. E. D. 1—General Engineering Drawing.....	4	G. E. D. 2—Descriptive Geometry.....	4
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Math. 2—Advanced Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Trigonometry.....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....	1
P. T. 1—Gymnasium.....	1	P. T. 2—Gymnasium.....	1
Total.....	18	Total.....	19

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.³Students who have had chemistry in the high school equivalent to Chemistry 1b will register in Chemistry 1a; those who have received credit for Chemistry 1a will register in Electrical Engineering 3 and 22.⁴A limited number of students may elect Highway Bridges and Culverts (3 hrs.) instead.⁵A limited number of students may elect Highway Engineering (2 hrs.) instead.

*Only students having high grades may elect a thesis. Others must offer an acceptable substitute.

SECOND YEAR FOR THE CLASS OF 1918

C. E. 27—Plane Surveying.....	3	C. E. 28—Higher Surveying.....	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lecture.....	3	Phys. 1b—Physics Lecture.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Mil. 2c—Military Drill.....	1	T. & A. M. 20—Analytic Mechanics.....	3
Elective	2	Mil. 2d—Military Drill.....	1
	—	Elective	2
Total	19	Total	19

THIRD YEAR FOR THE CLASS OF 1917

C. E. 51—Railroad Surveying.....	5	C. E. 52—Roads and Pavements.....	2
C. E. 1—Steam Engines and Boilers....	3	C. E. 60—Structural Stresses.....	4
T. & A. M. 21—Analytic Mechanics.....	2	C. E. 62—Structural Details.....	2
T. & A. M. 29—Resistance of Materials..	5	C. E. 70—Seminar.....	1
Non-technical elective.....	3	T. & A. M. 10—Hydraulics.....	3
	—	Non-technical elective.....	3
Total	18	Total	16

FOURTH YEAR FOR THE CLASS OF 1916

I. General Civil Engineering Option

C. E. 77—Masonry Construction.....	4	C. E. 80—Contracts and Specifications....	2
E. 79—Cement Laboratory.....	1	E. E. 4—Elementary Electrical Engineering	2
E. 81—Theory of Reinforced Concrete..	3	E. E. 64—Electrical Engineering Laboratory	1
E. 83—Bridge Design.....	3	M. & S. E. 3—Sewerage.....	3
Inspection Trip.....	—	Non-technical elective.....	2
T. & S. E. 2—Water Supply Engineering	4	Technical elective.....	5
Technical elective.....	2		—
Total	16	Total	16

II. Structural Engineering Option

C. E. 77—Masonry Construction.....	4	C. E. 80—Contracts and Specifications....	2
E. 79—Cement Laboratory.....	1	C. E. 82—Concrete Design, or	—
E. 81—Theory of Reinforced Concrete..	2	C. E. 84—Concrete Buildings.....	4
E. 85—Steel Bridge Design.....	5	C. E. 88—Steel Building Design.....	4
E. 87—Advanced Bridge Analysis..	2	M. & S. E. 3—Sewerage.....	3
Inspection Trip.....	—	Non-technical elective.....	3
T. & S. E. 2—Water Supply Engineering	4 (2?)		—
Total	18(16?)	Total	16

III. Highway Engineering Option

C. E. 77—Masonry Construction.....	4	C. E. 80—Contracts and Specifications....	2
E. 79—Cement Laboratory.....	1	C. E. 92—Concrete Bridges and Culverts..	2
E. 81—Theory of Reinforced Concrete..	2	C. E. 94—Highway Administration.....	3
E. 91—Highway Bridge Design....	4	C. E. 96—Road Laboratory.....	2
E. 93—Road Construction.....	3	Chem. 73—Asphalt, Tar, etc.....	2
Inspection Trip.....	—	Non-technical elective.....	3
T. & S. E. 2—Water Supply Engineering	4 (2?)	Technical elective.....	2
Total	18(16?)	Total	16

Technical Electives¹

C. E. 83—Bridge Design.....	3	C. E. 76—General Surveying.....	3
C. E. 85—Steel Bridge Design.....	5	C. E. 82—Concrete Design.....	5
C. E. 87—Advanced Bridge Analysis.....	2	C. E. 84—Concrete Buildings.....	2
C. E. 91—Highway Bridge Design.....	4	C. E. 88—Steel Building Design.....	4
C. E. 93—Road Construction.....	3	C. E. 92—Highway Bridge Design.....	3
C. E. 99—Thesis ²	1	C. E. 94—Highway Administration.....	1
Min. 6a—M. E. of Mines.....	3	C. E. 96—Road Laboratory.....	3
R. E. 33—Economy of Railway Location..	4	C. E. 98—Office Building Design.....	3
		C. E. 100—Thesis ³	2 or
		Chem. 73—Asphalts, Tar, etc.....	2
		E. E. 4—Electrical Engineering.....	2
		E. E. 64—Electrical Engineering Laboratory	
		Min. 1—Earth and Rock Excavation.....	1
		M. & S. E. 9—Hydraulic Design and Con-	
		struction.....	1
		M. & S. E. 3—Sewerage.....	1
		R. E. 31—Railway Yards and Terminals..	1

Course in Electrical Engineering as Taught in 1914-15

FIRST YEAR

FIRST SEMESTER

S. H. ³	
G. E. D. 1 ⁴ —General Engineering Drawing	4
Math. 2—Algebra.....	3
Math. 4—Trigonometry.....	2
M. E. 75 & 77 or 79 (41)—Shop Practise.	3
Rhet. 1—Rhetoric and Themes.....	3
Mil. 2a—Military Drill.....	1
P. T. 1—Gymnasium.....	1
Total	17

SECOND SEMESTER

S. H.	
G. E. D. 2 ⁴ —Descriptive Geometry.....	4
Math. 6—Analytic Geometry.....	3
M. E. 79 or 75 & 77 (41)—Shop Practise..	3
Rhet. 2—Rhetoric and Themes.....	3
Mil. 1—Drill Regulations.....	1
Mil. 2b—Military Drill.....	1
P. T. 2—Gymnasium.....	1
Total	17

SECOND YEAR

Math. 7—Differential Calculus.....	5
M. E. 81 (42)—Machine Work.....	3
Phys. 1a—Physics Lectures.....	3
Phys. 3a—Physics Laboratory.....	2
Rhet. 1—Rhetoric and Themes.....	3
Mil. 2c—Military Drill.....	1
Total	17

Chem. 1—Inorganic Chemistry.....	3
Math. 9—Integral Calculus.....	3
Phys. 1b—Physics Lectures.....	3
Phys. 3b—Physics Laboratory.....	2
Rhet. 2—Rhetoric and Themes.....	3
T. A. M. 20 (7)—Analytic Mechanics.....	1
Mil. 2d—Military Drill.....	1
Total	17

THIRD YEAR

Chem. 4—Advanced Chemistry.....	4
E. E. 25 (3)—Direct Current Apparatus..	4
E. E. 75 (32)—Elec. Eng. Laboratory.....	2
Math. 9a—Integral Calculus.....	2
Phys. 4a—Elec. & Mag. Measurement.....	2
T. A. M. 25—Resistance of Materials....	4
Total	18

E. E. 26 (5)—Alternating Currents.....	2
E. E. 76 (23)—Elec. Eng. Laboratory.....	2
M. E. 2—Steam Engineering.....	2
Phys. 4b—Elec. & Mag. Measurement.....	2
T. A. M. 26—Analytic Mechanics.....	2
Hydraulics	2
Total	17

FOURTH YEAR

E. E. 95 (13)—Seminar.....	1
E. E. 14—Alternating Current Apparatus..	4
E. E. 24—Elec. Eng. Laboratory.....	2
E. E. 55 (32)—Electrical Design.....	2
M. E. 15—Thermodynamics ⁴	5
Non-technical elective.....	3
Total	17

E. E. 96 (13)—Seminar.....	1
E. E. 17—Alternating Current Apparatus..	4
E. E. 27—Elec. Eng. Laboratory.....	2
E. E. 56 (34)—Electrical Design.....	2
E. E. 99 (35)—Thesis, or elective.....	5
Non-technical elective.....	3
Total	17

¹Subjects in this list which are not required in the option chosen may be used technical electives.²Only students having high grades may elect a thesis.³Semester hours. For definition, see page 263.⁴The numbers refer to courses in the Description of Courses, page 261. Numbers parenthesis are old numbers.

Course in Electrical Engineering as Taught in 1915-16

FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER

SECOND SEMESTER

	S. H. ¹		S. H. ¹
Chem. 1 ² —Inorganic Chemistry.....	4	Chem. 4 ² —Advanced Chemistry.....	4
G. E. D. 1—Gen. Eng. Drawing.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2 (1)—Rhetoric and Themes.....	3
Rhet. 1—Rhetoric and Themes.....	3	Mil. 1—Drill Regulations.....	1
Mil. 2a—Military Drill.....	1	Mil. 2b—Military Drill.....	1
P. T. 1—Gymnasium.....	1	P. T. 2 (1)—Gymnasium.....	1
Total	18	Total	19
Summer Reading, 50 points			

SECOND YEAR FOR THE CLASS OF 1918

Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Chem. 1—Inorganic Chemistry.....	4
G. E. 81 (42)—Machine Work.....	3	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 2c—Military Drill.....	1	T. A. M. 20 (7)—Analytic Mechanics.....	3
Total	18	Mil. 2d—Military Drill.....	1
Summer Reading, 50 points		Total	19

THIRD YEAR FOR THE CLASS OF 1917

Chem. 4—Advanced Chemistry.....	4	E. E. 26 (5)—Elementary Alternating Currents.....	4
E. 25 (3)—Direct Current Apparatus.....	4	E. E. 76 (23)—Elec. Eng. Laboratory.....	2
E. 75 (22)—Elec. Eng. Laboratory.....	2	M. E. 2—Steam Engineering.....	3
Phys. 4a—Elec. & Mag. Measurement.....	2	Phys. 4b—Elec. & Mag. Measurement.....	2
Math. 9a—Integral Calculus.....	2	T. A. M. 26—Anal. Mech. & Hydr.....	4
T. A. M. 25—Resistance of Materials.....	4	Elective	3
Total	18	Total	18

FOURTH YEAR FOR THE CLASS OF 1916

E. 95 (13)—Seminar.....	1	E. E. 96 (13)—Seminar.....	1
E. 14—Alternating Current Apparatus.....	4	E. E. 17—Alternating Current Apparatus.....	4
E. 24—Elec. Eng. Laboratory.....	2	E. E. 27—Elec. Eng. Laboratory.....	2
E. 55 (32)—Electrical Design.....	2	E. E. 56 (34)—Electrical Design.....	4
Inspection Trip.....	1	E. E. 99 (35)—Thesis, or elective.....	3
E. 61—Power Measurement.....	3	Elective	3
E. 11—Thermodynamics.....	3	Total	17
Elective	3		
Total	18		

Course in Mechanical Engineering as Taught in 1914-15

FIRST YEAR

FIRST SEMESTER

SECOND SEMESTER

	S. H. ¹		S. H. ¹
Chem. (1) ² —Inorganic Chemistry.....	4	Chem. (4) ² —Advanced Chemistry.....	4
G. E. D. (1)—Gen. Eng. Drawing.....	4	G. E. D. (2)—Descriptive Geometry.....	4
Language.....	4	Language.....	4
Math. (2)—Algebra.....	3	Math. (6)—Analytic Geometry.....	5
Math. (4)—Trigonometry.....	2	Mil. (1)—Drill Regulations.....	1
Mil. 2a (2)—Military Drill.....	1	Mil. 2b (2)—Military Drill.....	1
P. T. (1)—Gymnasium.....	1	P. T. 2 (1)—Gymnasium.....	1
Total	19	Total	20

¹Semester hours. For definition, see page 263.

²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

SECOND YEAR

Math. (7)—Differential Calculus.....	5	Math. (9)—Integral Calculus.....	3
M. E. 81 (42)—Machine Shop.....	3	M. E. 82 (42)—Machine Shop.....	2
M. E. (4)—Machine Design.....	2	M. E. 2 (16)—Steam Engineering.....	3
Physics 1a (1)—Physics Lectures.....	3	Phys. 1b (1)—Physics Lectures.....	2
Phys. 3a (3)—Physics Laboratory.....	2	Phys. 3b (3)—Physics Laboratory.....	2
Rhet. (1)—Rhetoric and Themes.....	3	Rhet. 2 (1)—Rhetoric and Themes.....	3
Mil. 2c (2)—Military Drill.....	1	T. A. M. 20 (7)—Analytic Mechanics.....	3
	—	Mil. 2d (2)—Military Drill.....	1
Total ..	19	Total ..	19

THIRD YEAR

Chem. (1)—Inorganic Chemistry.....	4	Chem. 16 (16)—Engineering Chemistry...	3
Math. (9a)—Integral Calculus.....	2	M. E. 64 (3)—Power Measurement.....	3
T. & A. M. 27 (8)—Analytic Mechanics...	3	M. E. 12 (7)—Thermodynamics.....	5
T. & A. M. 29 (9)—Resistance of Materials	5	M. E. (30)—Mechanics of Machinery.....	6
Non-technical elective.....	3		—
Total ..	17	Total ..	16

FOURTH YEAR

Econ. (2)—Principles of Economics.....	2	Econ. 16 (16)—Economic Problems.....	2
E. E. 12 (6)—Alternating Currents.....	2	E. E. 29 (29)—Alt. Cur. Lab. or C. E. 76 Surveying.....	2
M. E. 6a (6)—Heat Engines.....	3	M. E. 66 (6)—Heat Engines.....	2
M. E. (8)—Mechanics of Machinery.....	3	M. E. 52 (14)—Design of Power Plants.....	3
M. E. (9)—Machinery Design.....	3	M. E. 26 (38)—Heat, and Vent.....	3
M. E. 65 (12)—Mechanics Laboratory...	3	M. E. 99 (33)—Thesis or elective.....	3
M. E. 19 (19)—Seminar.....	1		—
Total ..	17	Total ..	15

Course in Mechanical Engineering as Taught in 1915-16

FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
Chem. 1a ² or 1b—Inorganic Chemistry...	4	Chem. 4—Qualitative Analysis.....	4
G. E. D. 1—Gen. Eng. Drawing.....	4	G. E. D. 2—Descriptive Geometry.....	4
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2 (1)—Rhetoric and Themes.....	4
Math. 2—College Algebra.....	3	Math. 6—Analytical Geometry.....	6
Math. 4—Trigonometry.....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a (2)—Military Drill.....	1	Mil. 2b (2)—Military Drill.....	1
P. T. 1—Gymnasium.....	1	P. T. 2 (1)—Gymnasium.....	1
Total ..	19	Total ..	20
Summer Reading, 50 points			

SECOND YEAR FOR THE CLASS OF 1918

Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M. E.—Shop Work.....	3	M. E.—Shop Work.....	3
Phys. 1a—Physics Lectures.....	3	Phys. 1b—Physics Lectures.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Mil. 2c (2)—Military Drill.....	1	Mil. 2d (2)—Military Drill.....	1
	—	T. & A. M. 20 (7)—Analytic Mechanics...	3
Total ..	17	Total ..	17
Summer Reading, 50 points			

THIRD YEAR FOR THE CLASS OF 1917

Chem. 1a or 1b—Inorganic Chemistry...	4	Chem. 16—Engineering Chemistry.....	3
Elective	3	M. E. 64 (3)—Power Measurement.....	3
Math. 9a—Differential Equations.....	2	M. E. 12 (7)—Thermodynamics.....	5
T. & A. M. 27 (8)—Analytic Mechanics...	3	M. E. 30—Mechanics of Machinery.....	5
T. & A. M. 29 (9)—Resistance of Materials	5	Total ..	16
Total ..	17		—

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

FOURTH YEAR FOR THE CLASS OF 1916

E. E. 11 (16)—Direct Current Apparatus.....	3	E. E. 12 (6 & 29)—Alternating Current Apparatus.....	3
E. E. 61—Direct Current Laboratory.....	1	E. E. 62—Alt. Current Laboratory.....	1
M. E. 43 (9)—Engineering Design.....	5	M. E. 32—Power Transmission.....	3
M. E. 65 (12)—Power Laboratory.....	3	M. E. 26 (38)—Heating and Ventilation.....	2
M. E. 37 (39)—Science of Management or		M. E. 44—Engineering Design or.....	5
M. E. 15 (6)—Gas Power Engineering.....	3	M. E. 52 (14)—Power Plant Design.....	3
Elective	3	M. E. 66 (27)—Power Laboratory.....	2
Inspection Trip.....	—		—
Total	18	Total	15

Course in Mining Engineering as Taught in 1914-15

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
Chem. 1 ² —Inorganic Chemistry.....	4	Chem. 2 ² —Inorganic Chemistry.....	2
G. E. D. 1—General Engineering Drawing 4		Chem. 3—Qualitative Analysis.....	2
Math. 2—Advanced Algebra.....	3	G. E. D. 2—Descriptive Geometry.....	4
Math. 4—Trigonometry.....	2	Math. 6—Analytical Geometry.....	5
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Mil. 2a—Drill.....	1	Mil. 1—Drill Regulations.....	1
Phys. Train. 1—Gymnasium.....	1	Mil. 2b—Drill.....	1
	—	Phys. Train. 2—Gymnasium.....	1
Total	18	Total	19

SECOND YEAR

Chem. 1b or 1a—Inorganic Chemistry....	4	Chem. 2—Inorganic Chemistry.....	2
Math. 7—Differential Calculus.....	5	Chem. 3—Qualitative Analysis.....	3
Mining Eng. 1—Earth and Rock Excav... 1		Math. 9—Integral Calculus.....	3
Physics 1a—Physics Lectures.....	3	Physics 1b—Physics Lectures.....	2
Physics 3a—Physics Laboratory.....	2	Physics 3b—Physics Laboratory.....	2
Rhet. 1—Rhetoric and Themes.....	2	Rhet. 2—Rhetoric and Themes.....	2
Mil. 2c—Drill.....	1	T. & A. M. 20—Analytical Mechanics... 3	
	—	Mil. 2d—Drill.....	1
Total	19	Total	19

THIRD YEAR

Chem. 5a—Elementary Quantitative Analysis 4		C. E. 58—Graphic Statics.....	2
C. E. 27—Surveying.....	3	E. E. 4—Electrical Engineering.....	2
M. E. 1—Steam Engineering.....	3	E. E. 64—Electrical Eng. Lab.....	1
Geol. 13a—Engineering Geology.....	3	Min. Eng. 6—Mech. Eng. of Mines.....	2
T. & A. M. 25 (25)—Resistance of Materials	4	Geol. 13b—Engineering Geology.....	3
	—	Min. Eng. 3—Mining Methods.....	2
Total	17	T. & A. M. 26 (26)—Kinetics and Hydraulics	4
		Total	16

FOURTH YEAR

Chem. 7—Metallurgy.....	3	E. E. 4—Electrical Engineering.....	2
Chem. 65—Gas and Fuel Analysis.....	2	E. E. 64—Elect. Eng. Lab.....	1
Chem. 69—Assaying, or Geol. 21—Geology of Coal.....	2	Geol. 2—Economic Geology.....	3
Mining Eng. 6a—Mechanical Engineering of Mines.....	3	Mining Eng. 42—Mine Plant.....	2
Mining Eng. 9—Preparation of Coal and Ores	3	Mining Eng. 8—Mine Administration.....	2
Mining Eng. 41—Mine Design.....	3	Mining Eng. 64—Mining Laboratory.....	3
	—	Mining Eng. 100 (or approved Elective).....	3
Total	16	Total	16

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261.

Course in Mining Engineering as Taught in 1915-16**FIRST YEAR FOR THE CLASS OF 1919**

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
Chem. 1a ² or 1b—Inorganic Chemistry.....	4	Chem. 2 & 3—Inorganic Chemistry and Qualitative Analysis.....	4
G. E. D. 1—General Engineering Drawing.....	4	G. E. D. 2—Descriptive Geometry.....	4
Math. 2—Adv. Algebra.....	3	Math. 6—Analytical Geometry.....	5
Math. 4—Trigonometry.....	2	Rhet. 2—Rhetoric and Themes.....	3
Rhet. 1 (1)—Rhetoric and Themes.....	3	Mil. 2b (2)—Military Drill.....	1
Mil. 2a (2)—Military Drill.....	1	Mil. 1—Drill Regulations.....	1
P. T. 1—Gymnasium.....	1		
Total	18	Total	18

Summer Reading, 50 points

SECOND YEAR FOR THE CLASS OF 1918

Geol. 13a—Engineering Geology.....	3	Geol. 13b—Engineering Geology.....	3
Language.....	4	Language.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—Physics Lecture.....	3	Phys. 1b—Physics Lecture.....	2
Phys. 3a—Physics Laboratory.....	2	Phys. 3b—Physics Laboratory.....	2
Mil. 2c (2)—Drill.....	1	T. & A. M. 20 (7)—Analytic Mechanics.....	3
		Mil. 2d (2)—Drill.....	1
Total	18	Total	18

Summer Reading, 50 points

THIRD YEAR FOR THE CLASS OF 1917

Chem. 5a—Quantitative Analysis.....	4	C. E. 58 (20)—Graphic Statics.....	2
C. E. 27 (21)—Surveying.....	3	E. E. 4—Elementary Electrical Engineering and.....	2
Geol. 13a—Engineering Geology.....	3	E. E. 64—Elect. Eng. Lab.....	1
M. E. 1—Steam Engineering.....	3	Geol. 13b—Engineering Geology.....	3
T. & A. M. 25—Resistance of Material.....	—	Min. 4—Mining Methods.....	2
Total	17	Min. 6—Mechanical Engineering of Mines.....	2
		T. & A. M. 26—Analytic Mechanics and Hydraulics.....	4
		Total	16

FOURTH YEAR FOR THE CLASS OF 1916

Chem. 7—Metallurgy.....	3	Elective	3
Chem. 65—Gas and Fuel Analysis.....	2	Min. 62 (4)—Mine Surveying.....	4
Chem. 69—Assaying.....	2	Min. 8 (7)—Mine Administration and Law.....	3
Elective	3	Min. 42 (8)—Mine Plants.....	2
Min. 5—Ventilation.....	2	Min. 64 (10)—Mining Laboratory.....	3
Min. 9—Preparation of Coal and Ores.....	3	Min. 13—Utilization of Fuels.....	2
Min. 41 (12)—Mine Design.....	3	Total	17
Inspection Trip.....	—		
Total	18		

Course in Municipal and Sanitary Engineering as Taught in 1914-15**FIRST YEAR**

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
Chem. 1 ² —Inorganic Chemistry.....	4	Chem. 2, 3 ² —Inorganic and Analytic.....	4
G. E. D. 1—Drawing.....	4	G. E. D. 2—Descriptive Geometry.....	4
Language.....	4	Language.....	4
Math. 2—Advanced Algebra.....	3	Math. 6—Analytic Geometry.....	5
Math. 4—Trigonometry.....	2	Mil. 1—Drill Regulations.....	1
Mil. 2a—Drill.....	1	Mil. 2b—Drill.....	1
P. T. 1—Gymnasium.....	1	P. T. 2—Gymnasium.....	1
Total	19	Total	20

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

SECOND YEAR

C. E. 27—Surveying.....	3	C. E. 28—Surveying.....	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Physics 1a—Physics Lectures.....	3	Physics 1b—Physics Lectures.....	2
Physics 3a—Physics Laboratory.....	2	Physics 3b—Physics Laboratory.....	2
Rhet. 1—Rhetoric and Themes.....	3	Rhet. 2—Rhetoric and Themes.....	3
Mil. 2c—Drill.....	1	T. A. M. 20—Analytic Mechanics.....	3
	—	Mil. 2d—Drill.....	1
Total	17	Total	17

THIRD YEAR

Chem. 1b or 1a—Inorganic Chemistry... 4	Chem. 2, 3 10b—Qualitative and Water Analysis..... 5
C. E. 53—R. R. Surveying..... 3	C. E. 60—Structural Stresses..... 4
Botany 6..... 2	C. E. 63—Structural Details..... 2
T. & A. M. 21—Analytic Mechanics..... 2	M. E. 23—Steam Engineering..... 2
T. & A. M. 25—Resistance of Material... 5	T. & A. M. 10—Hydraulics..... 3
Total	16
Total	17

FOURTH YEAR

M. & S. E. 2—Water Supply Engineering 4	M. & S. E. 3—Sewerage..... 3
M. & S. E. 6a—Water Purification..... 3	M. & S. E. 6b—Water Purification..... 2
C. E. 77—Masonry..... 4	M. & S. E. 9—Hyd. Des. & Const..... 2
C. E. 79—Cement Laboratory..... 1	M. & S. E. 30—Thesis..... 2
C. E. 12—Bridge Analysis..... 2	C. E. 6b—Masonry and Reinforced Concrete..... 2
C. E. 13—Bridge Details..... 2	M. E. 61—Mechanical Engineering Laboratory..... 2
E. E. 64—Electrical Engineering..... 1	Econ. 2—Principles of Economy..... 2
Total	17
Total	17

Course in Municipal and Sanitary Engineering as Taught in 1915-16

FIRST YEAR FOR THE CLASS OF 1919

S. H. ¹	S. H. ¹
Chem. 1a ² or 1b—Inorganic Chemistry... 4	Chem. 4—Advanced Chemistry..... 4
G. E. D. 1—General Engineering Drawing 4	G. E. D. 2—Descriptive Geometry..... 4
Math. 2—Advanced Algebra..... 3	Math. 6—Analytic Geometry..... 5
Math. 4—Trigonometry..... 2	Rhet. 1b—Rhetoric and Themes..... 3
Rhet. 1a—Rhetoric and Themes..... 3	Mil. 1—Drill Regulations..... 1
Mil. 2a (2)—Military Drill..... 1	Mil. 2b (2)—Military Drill..... 1
P. T. 1a (1)—Gymnasium..... 1	P. T. 1b (1)—Gymnasium..... 1
Total	18
Summer Reading, 50 points.....	Total

SECOND YEAR FOR THE CLASS OF 1918

C. E. 27—Plane Surveying..... 3	C. E. 28—Higher Surveying..... 3
Math. 7—Differential Calculus..... 5	Math. 9—Integral Calculus..... 3
Phy. 1a (1)—Physics Lectures..... 3	Phy. 1b (1)—Physics Lectures..... 2
Phy. 3a (3)—Physics Laboratory..... 2	Phy. 3b (3)—Physics Laboratory..... 2
Rhet. 1—Rhetoric and Themes..... 3	Rhet. 1—Rhetoric and Themes..... 3
Mil. 2c (2)—Military Drill..... 1	T. & A. M. 21 (7)—Analytic Mechanics... 3
Total	17
Summer Reading, 50 points.....	Total

THIRD YEAR FOR THE CLASS OF 1917

Chem. 1b or 1a—Inorganic Chemistry... 4	Chem. 2, 3, 10b—Qualitative and Water Analysis..... 5
C. E. 4a—Railroad Surveying..... 3	C. E. 60—Structural Stresses..... 4
Botany 6—Bacteriology..... 2	C. E. 52—Roads and Pavements..... 3
T. & A. M. 21—Analytic Mechanics..... 2	M. E. 2—Steam Engineering..... 3
T. & A. M. 20—Resistance of Material... 5	T. & A. M. 10—Hydraulics..... 3
Total	16
Total	18

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

FOURTH YEAR FOR THE CLASS OF 1916

C. E. 77 (5r)—Masonry.....	4	C. E. 62—Structural Details	2
C. E. 79 (5l)—Cement Laboratory.....	1	C. E. 80 (16)—Contracts and Specifications	2
C. E. 81 (6a)—Reinforced Concrete.....	2	E. E. 4 (1)—Elementary Electrical Engineering	2
M. E. 61 (13)—Steam Laboratory.....	2	E. E. 64 (28)—Electrical Engineering Laboratory	1
M. & S. E. 2—Water Supply Engineering	4	M. & S. E. 3—Sewerage	3
M. & S. E. 6a—Water Purification and Sewage Disposal.....	3	M. & S. E. 6b—Water Purification and Sewage Disposal	2
Non-technical Elective.....	2	M. & S. E. 9—Hydraulic Design and Construction	2
Inspection Trip.....	—	M. & S. E. 80—Thesis or Applied Electricity	3
Total	18	Total	17

Course in Railway Civil Engineering as Taught in 1914-15

FIRST YEAR

FIRST SEMESTER		SECOND SEMESTER	
	S. H. ¹		S. H. ¹
G. E. D. (1) ² —General Engineering Drawing	4	G. E. D. (2) ² —Descriptive Geometry.....	4
Chemistry (1a or 1b)—Inorg. Chemistry..	4	Chemistry (4)—Qual. Analysis.....	4
Math. (4)—Trigonometry	2	Math. (6)—Analytic Geometry.....	5
Math. (2)—Advanced Algebra.....	3	Rhet. 2 (1)—Rhetoric and Themes.....	3
Rhet. (1)—Rhetoric and Themes.....	3	Mil. 2b (2)—Military Drill.....	1
Mil. 2a (2)—Military Drill.....	1	Mil. (1)—Drill Regulations.....	1
P. T. (1)—Gymnasium.....	1	P. T. 2 (1)—Gymnasium.....	1
Total.....	18	Total.....	19

SECOND YEAR

Chemistry	4	Chemistry	4
C. E. 27 (21)—Surveying.....	3	C. E. 28 (22)—Topographical Surveying..	3
Math. (7)—Differential Calculus	5	Math. (9)—Integral Calculus.....	3
Phys. 1a (1)—Physics Lectures.....	3	Phys. 1b (1)—Physics Lectures.....	2
Phys. 3a (3)—Physics Laboratory.....	2	Phys. 3b (3)—Physics Laboratory.....	2
Mil. 2c (2)—Military Drill.....	1	T. & A. M. 20 (7)—Analytic Mechanics..	3
Total.....	18	Mil. 2d (2)—Military Drill.....	1
		Total.....	18

THIRD YEAR

Chemistry (1a or 1b)—Inorg. Chemistry..	4	C. E. 60 (12)—Bridge Analysis.....	2
C. E. 51 (4)—R. R. Surveying.....	5	C. E. 60 (20)—Graphic Statics.....	2
R. E. 25—Ry. Development.....	3	R. E. (31)—Railway Yards and Terminals	3
T. & A. M. 21 (8)—Analytic Mechanics..	2	R. E. 34—Railway Maintenance.....	4
T. & A. M. 29 (9)—Resistance of Materials	5	T. & A. M. (10)—Hydraulics.....	3
Total.....	19	Non-technical Elective	3
		Total.....	17

FOURTH YEAR

C. E. 77, 79 (5)—Masonry Construction..	5	C. E. 6b (6)—Masonry Design.....	2
C. E. (12)—Bridge Analysis.....	2	C. E. 83 (14a)—Bridge Design.....	2
C. E. 81, 6—Reinforced Concrete Theory..	1	C. E. 80 (16)—Engineering Construction and Specifications	2
C. E. (24)—Metal Structures	1	Econ. (42)—Railway Administration.....	3
Econ. (41)—Railway History and Organization	3	R. E. (30)—Thesis	3
R. E. (33)—Ry. Location	4	R. E. (32)—Railway Construction	2
R. E. (35)—Ry. Signaling	1	R. E. 51 (50)—Seminar	1
R. E. (50)—Seminar	1	Total.....	15
Total.....	18		

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

Course in Railway Civil Engineering as Taught in 1915-16

FIRST YEAR FOR THE CLASS OF 1919

	S. H. ¹		S. H. ¹
Chem. (1a or 1b) ²	4	Chem. (4) ² —Qualitative Analysis.....	4
G. E. D. (1).....	4	G. E. D. (2)—Descriptive Geometry.....	4
Math. (2)—Advanced Algebra.....	3	Math. (6)—Analytic Geometry.....	5
Math. (4)—Trigonometry.....	2	Rhet. 2 (1)—Rhetoric and Themes.....	3
Rhet. (1)—Rhetoric and Themes.....	3	Mil. (1)—Military Drill.....	1
Mil. 2a (2)—Military Drill.....	1	Mil. 2b (2)—Drill Regulations.....	1
P. T. 1 (1)—Gymnasium.....	1	P. T. 2 (1)—Gymnasium.....	1
Total.....	18	Total.....	19
Summer Reading, 50 points.			

SECOND YEAR FOR THE CLASS OF 1918

C. E. 27 (21)—Surveying.....	3	C. E. 28 (22)—Topographical Surveying..	3
Language.....	4	*Language.....	4
Math. (7)—Differential Calculus.....	5	Math. (9)—Integral Calculus.....	3
Phys. 1a (1)—Physics Lectures.....	3	Phys. 1b (1)—Physics Lectures.....	2
Phys. 3a (3)—Physics Laboratory.....	2	Phys. 3b (3)—Physics Laboratory.....	2
Mil. 2c (2).....	1	T. & A. M. 20 (7)—Analytic Mechanics..	3
Total.....	18	Mil. 2d (2).....	1
Total.....		Total.....	18
Summer Reading, 50 points			

THIRD YEAR FOR THE CLASS OF 1917

C. E. 51 (4)—Railroad Surveying.....	5	C. E. 60 (12, 20)—Structural Stresses....	4
R. E. 25—Railway Development.....	3	R. E. (31)—Railway Yards and Terminals..	3
Rhet. (1)—Rhetoric and Themes.....	3	R. E. 34—Ry. Maintenance.....	4
T. & A. M. 21 (8)—Analytic Mechanics..	2	Rhet. 2 (1)—Rhetoric and Themes.....	3
T. & A. M. 29 (9)—Resistance of Mate- rials.....	5	T. & A. M. (10)—Hydraulics.....	3
Total.....	18	Total.....	17

FOURTH YEAR FOR THE CLASS OF 1916

C. E. 77 (5r)—Masonry Construction....	4	C. E. 80 (16)—Engineering Construction and Specifications.....	2
C. E. 79 (51)—Cement Laboratory.....	1	E. E. 4—Elementary Elec. Eng.....	2
C. E. 91 (6)—Reinforced Concrete Theory..	2	E. E. 64—Electrical Eng. Laboratory.....	1
C. E. 83 (14a)—Bridge Design.....	3	Non-technical Elective.....	3
M. E. (11)—Steam Engines and Boilers... 3		R. E. (30)—Thesis.....	3
R. E. (32)—Railway Construction.....	3	R. E. (33)—Railway Location.....	5
R. E. (35)—Railway Signaling.....	1	R. E. 51 (50)—Seminar.....	1
R. E. (50)—Seminar.....	1	Total.....	17
Total.....	18	Total.....	17

Course in Railway Electrical Engineering as Taught in 1914-15

FIRST YEAR

FIRST SEMESTER	S. H. ¹	SECOND SEMESTER	S. H. ¹
Chem. (1) ² —Inorganic Chemistry.....	4	Chem. (2 and 3) ² —Inorganic Chemistry and Analysis.....	4
G. E. D. (1)—General Engineering Draw- ing.....	4	G. E. D. (2)—Descriptive Geometry.....	4
Math. (2)—Advanced Algebra.....	3	Math. (6)—Analytic Geometry.....	5
Math. (4)—Trigonometry.....	2	Rhet. 2 (1)—Rhetoric and Themes.....	3
Rhet. (1)—Rhetoric and Themes.....	3	Mil. (1)—Drill Regulations.....	1
Mil. 2a (2)—Military Drill.....	1	Mil. 2b (2)—Military Drill.....	1
P. T. (1)—Gymnasium.....	1	P. T. 2 (1)—Gymnasium.....	1
Total.....	18	Total.....	19

SECOND YEAR

Math. (7)—Differential Calculus.....	5	Chem. (1)—Inorganic Chemistry.....	4
M. E. 81 (42)—Shop Practise.....	3	Math. (9)—Integral Calculus.....	3
Phys. 1a (1)—Physics Lectures.....	3	Phys 1b (1)—Physics Lectures.....	2
Phys. 3a (3)—Physics Laboratory.....	2	Phys. 3b (3)—Physics Laboratory.....	2
Rhet. (1)—Rhetoric and Themes.....	3	Rhet. 2 (1)—Rhetoric and Themes.....	3
Mil. 2c (2)—Military Drill.....	1	T. & A. M. 20 (7)—Analytic Mechanics..	3
Total.....	17	Mil. 2d (2)—Military Drill.....	1
Total.....		Total.....	18

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

THIRD YEAR

FIRST SEMESTER	
Chem. (2 and 3)—Inorganic Chemistry and Analysis.....	4
E. E. 75 (3)—Dynamo Electrical Mach.....	4
E. E. 75 (22)—Electrical Engineering Laboratory.....	2
Phys. 4a (4)—Electrical and Magnetic Measurements.....	2
R. E. 25—Railway Development.....	3
T. & A. M. 25 (9)—Resistance of Materials.....	4
Total.....	19

SECOND SEMESTER	
E. E. 26 (5)—Alternating Currents.....	4
E. E. 76 (23)—Electrical Engineering Laboratory.....	2
M. E. 2—Steam Engines.....	3
Phys. 4b (4)—Electrical and Magnetic Measurements.....	2
R. E. 60—Electric Railway Principles.....	2
T. & A. M. 36 (8)—Analytic Mechanics.....	2
Non-technical Elective.....	3
Total.....	18

FOURTH YEAR

Econ. (2)—Principles of Economics.....	2
E. E. (14)—Advanced Alternating Currents.....	4
E. E. (24)—Electrical Engineering Laboratory.....	2
M. E. (15)—Thermodynamics.....	3
M. E. (23)—Steam Engines.....	2
R. E. 67 (10)—Seminar.....	1
R. E. (64)—Electric Railway Practise.....	3
Total.....	17

Econ. (16)—Economic Problems.....	2
E. E. 56 (34)—Electric Design and Power Plants.....	4
R. E. 68 (10)—Seminar.....	1
R. E. (30)—Thesis or Option.....	3
R. E. (63)—Electric Railway Laboratory.....	3
R. E. (65)—Electric Railway Practise.....	3
Total.....	16

Course in Railway Electrical Engineering as Taught in 1915-16

FIRST YEAR FOR THE CLASS OF 1919

FIRST SEMESTER		S. H. ¹	
Chem. 1a ² or 1b (1)—Inorganic Chemistry.....	4		
G. E. D. 1 (1)—General Engineering Drawing.....	4		
Math. 2 (2)—College Algebra.....	3		
Math. 4 (4)—Plane Trigonometry.....	2		
Rhet. 1 (1)—Rhetoric and Themes.....	3		
Mil. 2a (2)—Military Drill.....	1		
P. T. 1 (1)—Gymnasium.....	1		
Total.....	18		

SECOND SEMESTER		S. H. ¹	
Chem. 4 (4)—Qualitative Analysis.....	4		
G. E. D. 2 (2)—Descriptive Geometry.....	4		
Math. 6 (6)—Analytic Geometry.....	5		
Rhet. 2 (1)—Rhetoric and Themes.....	3		
Mil. 1 (1)—Drill Regulations.....	1		
Mil. 2b (2)—Military Drill.....	1		
P. T. 2 (1)—Gymnasium.....	1		
Total.....	18		

Summer Reading, 50 points

SECOND YEAR FOR THE CLASS OF 1918

Language.....	4
Math. 7 (7)—Differential Calculus.....	5
M. E. 75 (41)—Forge Work.....	1
M. E. 77 (41)—Foundry Work.....	2
Phys. 1a (1)—General Physics.....	4
Phys. 3a (3)—Physical Measurements.....	2
Mil. 2c (2)—Military Drill.....	1
Total.....	19

Language.....	4
Math. 9 (9)—Integral Calculus.....	3
M. E. 79 (41)—Pattern Work.....	3
Phys. 1b (1)—General Physics.....	2
Phys. 3b (3)—Physical Measurements.....	2
T. & A. M. 20 (7)—Analytic Mechanics.....	3
Mil. 2d (2)—Military Drill.....	1
Total.....	18

Summer Reading, 50 points

THIRD YEAR FOR THE CLASS OF 1917

Chem. 4 (4)—Qualitative Analysis.....	4
E. E. 25 (3)—D. C. Apparatus.....	4
E. E. 75 (22)—Electrical Laboratory.....	2
Phys. 4a (4)—Electrical and Magnetic Measurements.....	2
R. E. 25—Railway Development.....	3
T. & A. M. 25 (9)—Resistance of Materials.....	4
Total.....	19

E. E. 26 (5)—Alternating Currents.....	4
E. E. 76 (23)—Electrical Laboratory.....	2
Elective.....	3
M. E. 2—Steam Engineering.....	3
Phys. 4b (4)—Electrical and Magnetic Measurements.....	2
R. E. 60—Electric Railway Principles.....	2
T. & A. M. 36 (8)—Analytic Mechanics.....	2
Total.....	18

FOURTH YEAR FOR THE CLASS OF 1916

Elective.....	3
M. E. 11 (15)—Thermodynamics.....	3
M. E. 61 (13)—Mechanical Laboratory.....	2
R. E. 62—Electric Railway Laboratory.....	2
R. E. 64 (64)—Electric Railway Practise.....	3
R. E. 66—Electric Railway Machinery.....	3
R. E. 67 (10)—Seminar.....	1
Total.....	17

E. E. 56 (34)—Electrical Design.....	4
Elective.....	3
R. E. 63 (63)—Electric Railway Laboratory.....	2
R. E. 65 (65)—Electric Railway Economics.....	4
R. E. 30 (30)—Thesis (or elective).....	3
Total.....	16

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

Course in Railway Mechanical Engineering as Taught in 1914-15

FIRST YEAR

FIRST SEMESTER

S. H.¹

Chem. (1b) or (1a) ² —Inorg. Chemistry...	4
G. E. D. (1)—Gen. Eng. Drawing.....	4
Math. (2)—Advanced Algebra.....	3
Math. (4)—Trigonometry.....	2
Rhet. (1)—Rhetoric and Themes.....	3
Mil. 2a (2)—Military Drill.....	1
P. T. (1)—Gymnasium.....	1
Total.....	18

SECOND SEMESTER

S. H.¹

Chem. (4)—Advanced Chemistry.....	4
G. E. D. (2)—Descriptive Geometry.....	4
Math. (6)—Analytic Geometry.....	5
Rhet. 2 (1)—Rhetoric and Themes.....	3
Mil. 2b (2)—Military Drill.....	1
Mil. (1)—Drill Regulations.....	1
P. T. 2 (1)—Gymnasium.....	1
Total.....	19

SECOND YEAR

Math. (7)—Differential Calculus.....	5
M. E. (4)—Machine Design.....	2
M. E. 81 (42)—Machine Work.....	3
Phys. 1a (1)—Physics Lectures.....	3
Phys. 3a (3)—Physics Laboratory.....	2
Rhet. (1)—Rhetoric and Themes.....	3
Mil. 2c (2)—Military Drill.....	1
Total.....	19

Math. (9)—Integral Calculus.....	3
M. E. 2 (16)—Steam Engineering.....	3
M. E. 82 (42)—Machine Work.....	2
Phys. 1b (1)—Physics Lectures.....	2
Phys. 3b (3)—Physics Laboratory.....	3
Rhet. 2 (1)—Rhetoric and Themes.....	3
T. & A. M. 20 (7)—Analytic Mechanics..	3
Mil. 2d (2)—Military Drill.....	1
Total.....	19

THIRD YEAR

Chem. (1a) or (1b)—Inorganic Chemistry	4
Non-technical Elective	3
Math. (9a)—Integral Calculus.....	2
R. E. 25—Ry. Development.....	3
T. & A. M. 21 (8)—Analytic Mechanics..	2
T. & A. M. 29 (9)—Resistance of Materials	5
Total.....	19

Chem. (16)—Engineering Chemistry.....	3
Non-technical Elective	3
M. E. 12 (15, 23)—Thermodynamics.....	5
M. E. 64 (3)—Power Measurements.....	3
R. E. 6—Locomotives.....	4
Total.....	18

FOURTH YEAR

Econ. (2)—Principles of Economics.....	2
E. E. 12 (6)—Alternating Currents.....	2
M. E. (8)—Mech. of Mach'y.....	3
R. E. (1)—Locomotives	2
R. E. (2)—Locomotive Design	3
R. E. (4)—Locomotive Performance	2
R. E. (8)—Dynamometer Car Tests.....	2
R. E. 9 (10)—Seminar.....	1
Total.....	17

C. E. 96 (10)—Surveying.....	2
Econ. (16)—Economics Problems.....	2
R. E. (3)—Shops and Auxiliary Equipments	2
R. E. (7)—Advanced Design	3
R. E. (10)—Seminar	1
R. E. (30)—Thesis	3
R. E. (61)—Traction	3
Total.....	16

Course in Railway Mechanical Engineering as Taught in 1915-16

FIRST YEAR FOR THE CLASS OF 1919

Chem. (1b or 1a)—Inorganic Chemistry..	4
G. E. D. (1)—General Engineering Drawing	4
Math. (2)—Advanced Algebra.....	3
Math. (4)—Trigonometry.....	2
Rhet. (1)—Rhetoric and Themes.....	3
Mil. 2a (2)—Military Drill.....	1
P. T. (1)—Gymnasium.....	1
Total	18

Chem. (4)—Advanced Chemistry.....	4
G. E. D. (2)—Descriptive Geometry.....	4
Math. (6)—Analytic Geometry.....	5
Rhet. 2 (1)—Rhetoric and Themes.....	3
Mil. 2b (2)—Military Drill.....	1
Mil. (1)—Drill Regulations.....	1
P. T. 2 (1)—Gymnasium.....	1
Total	19

Summer Reading, 50 points

¹Semester hours. For definition, see page 263.²The numbers refer to courses in the Description of Courses, page 261. Numbers in parenthesis are old numbers.

SECOND YEAR FOR THE CLASS OF 1918

Language	4	Language	4
Math. (7)—Differential Calculus.....	5	M. E. 75—Forge Work.....	1
M. E. 79 (41)—Pattern Work.....	3	M. E. 77—Foundry Work.....	2
Physics 1a (1)—Physics Lectures.....	3	Math. (9)—Integral Calculus.....	3
Phys. 8a (3)—Physics Laboratory.....	2	Phys. 1b (1)—Physics Lectures.....	2
Mil. 2c (2)—Military Drill.....	1	Phys. 3b (3)—Physics Laboratory.....	2
—	—	T. & A. M. 20 (7)—Analytic Mechanics... 3	
Total	18	Mil. 2d (2)—Military Drill.....	1
		—	—
		Total	18
		Summer Reading, 50 points.	

THIRD YEAR FOR THE CLASS OF 1917

Chem. (1b or 1a)—Inorganic Chemistry..	4	Chem. (16)—Engineering Chemistry.....	3
Non-technical Elective.....	3	Non-technical Elective.....	3
Math. (9a)—Integral Calculus.....	2	M. E. 12 (7)—Thermodynamics.....	5
R. E. 25—Ry. Development.....	3	M. E. 64 (3)—Power Measurement.....	3
T. & A. M. 27 (8)—Analytic Mechanics... 3		R. E. 6—Locomotives.....	4
T. & A. M. 25 (9)—Resistance of Materials 4		—	—
—	—	Total	18
Total	19		

FOURTH YEAR FOR THE CLASS OF 1916

Non-technical Elective.....	3	Non-technical Elective.....	2
E. E. 11—D. C. Apparatus.....	3	E. E. 12—A. C. Apparatus.....	3
E. E. 61—D. C. Laboratory.....	1	E. E. 62—A. C. Laboratory.....	1
M. E. 87—Science of Management.....	3	R. E. (7)—Adv. Design.....	3
R. E. (2)—Locomotive Design.....	3	R. E. (8)—Railway Laboratory.....	2
R. E. 5—Railway Laboratory.....	3	R. E. (30)—Thesis	3
R. E. 9 (10)—Seminar.....	1	R. E. (61)—Traction	3
—	—	—	—
Total	17	Total	17

THE COLLEGE OF AGRICULTURE

For the *buildings* used by this College, see page 53; for a list of its *courses*, page 67; for *clubs auxiliary to its courses of study*, page 112; for *honors*, page 94; for *honorary societies*, page 111; for *fees and expenses*, page 118.

GENERAL STATEMENT

This College offers courses of instruction to both men and women. The courses offered are designed for three distinct purposes:

First, and mainly, to train for the profession of farming.

Second, to train for the teaching of agriculture in the public schools.

Third, to train for the profession of landscape gardening.

The courses for women, offered by the department of household science, have two purposes in view:

First, and mainly, to train young women in the science and art of household affairs.

Second, to prepare teachers for giving instructions in domestic science in high schools, and, in connection with the College of Liberal Arts and Sciences, to fit for college and university positions.

In the case of both men and women the great purpose is to prepare for the practical affairs of life. Since technical knowledge and skill should be developed along with, and not at the expense of, those things which tend to the production of cultured and versatile men and women, the technical work is closely associated with the related sciences, and students are required to divide their time fairly with those subjects that develop general knowledge and breadth of view.

The College offers over ninety courses of instruction in technical subjects, besides opportunity to elect from the scientific and literary offerings of the other colleges of the University.

The elective system prevails, and with a few exceptions the student is left free to select those subjects which seem best fitted to meet his needs, always under the advice and guidance of the faculty.

Credit is given for all work accomplished; this credit counts toward graduation if the student desires a degree.

ADMISSION

For the regulations in regard to admission to the College of Agriculture, see the general statement of the entrance requirements of the University, pages 69-91.

ADMISSION TO GRADUATE WORK IN AGRICULTURE

While in general it will be expected that applicants for admission to the Graduate School shall have had an undergraduate course in scientific and tech-

nical agriculture equivalent to that of the University of Illinois, yet students who are otherwise eligible for admission to the Graduate School may be admitted to graduate standing in agriculture if they have had a thorough training in the sciences underlying it, even though their undergraduate course of study lacked to some extent the amount and kind of technical work included in our course.

SCHOLARSHIPS IN AGRICULTURE AND HOUSEHOLD SCIENCE

For detailed information concerning scholarships in agriculture and household science, see page 114.

FACILITIES FOR INSTRUCTION AND METHODS OF WORK

The affiliation of the College with the work of the Agricultural Experiment Station not only enables the University to support a larger faculty than would otherwise be possible, but also permits a higher degree of specialization. For the most part those who teach in the College are the ones who conduct experiments in the same subjects in the Station.

The methods of instruction vary with the nature of the courses. In general the laboratory method prevails. Text-books are used whenever good ones are available. Both the laboratory and the text are supplemented by lectures and reference readings. Buildings and laboratory space, illustrative specimens and material, and library facilities are provided.

AGRICULTURAL EXTENSION

Agricultural extension work serves as the intermediary between the College of Agriculture and the Agricultural Experiment Station and the local community and the farm. Each department does extension work, and so far as possible provides special men for such work. The responsibility for the work of these men lies with their own department. For this reason not all of the extension effort issues from one office.

For administrative purposes and to coordinate these activities through a regular channel, agricultural extension is administered as a separate department, conducting all extension enterprises which do not deal with technical subjects and cooperating with other departments in diffusing the results of their work in the State.

Some of the general extension enterprises are: agricultural extension schools and demonstrations in different localities; the Two Weeks' Course given annually at the College in January; helping at farmers' institutes and similar gatherings, with special railway lecture trains, at the boys' state fair school, and in educational exhibits at fairs and elsewhere; welfare work in rural communities; and excursions to the College.

Aside from this, courses of study are offered to assist in determining what phases of agriculture are suitable for secondary school purposes and how they should be taught, and for the discussion of organization, extension projects, and methods.

AGRONOMY

The department of agronomy gives instruction in those subjects which relate especially to the field and its affairs, as drainage, farm machinery, field crops;

the chemistry, physics, and bacteriology of the soil; manures and rotation in their relation to fertility; plant breeding. The department possesses equipment and facilities for instruction in these subjects, and added to this are opportunities for contact with the research work of the Agricultural Experiment Station, especially in crop production, soil fertility, and plant breeding, both in the analytical and pot culture laboratories and on the experiment fields at the University and in other parts of the State.

Attention is called here to the fact that in case circumstances prohibit a regular four-year course, it is possible for a student who has had sufficient preparatory training so to arrange his studies as to obtain the necessary prerequisites and complete the general courses in soil physics and soil fertility in two years' time. (See Agronomy 9 and 12.)

ANIMAL HUSBANDRY

This department offers courses covering the separate study of sheep, swine, poultry, and beef cattle and their products; heavy and light horses with their care and training; the management of herds, flocks, and studs; the principles and practise of feeding, of breeding, and of marketing; and the chemical and physiological phases of animal nutrition.

The University herds, flocks, and studs contain about 500 pure-bred cattle, sheep, swine, and horses, and in addition several hundred fowls, ducks, and turkeys, which are always available for class purposes. These animals are also used for investigations in feeding and breeding, and for illustration of breed types and characteristics. They consist of Shorthorn, Hereford, and Aberdeen-Angus cattle; Shropshire, Oxford, Southdown, Hampshire, Rambouillet, Dorset, and Cheviot sheep; Poland-China, Berkshire, Duroc Jersey, Chester White, Tamworth, Large Yorkshire, and Hampshire swine; Percheron, Standard-bred, Shire, and American Saddle horses. In addition to the above pure-bred livestock, a large number of grade animals of the various classes of livestock furnish ample material for judging practises. In these practises, besides illustrating standard market classes and grades of livestock, special attention is given to instruction in the selection of animals according to feed lot and market requirements. The new stock pavilion offers every opportunity for show and judging work. (For detailed description see page 53.) The lectures of the various courses are supplemented by 1,000 or more lantern slides, charts, diagrams, models and photographs. Pedigree and breed work is facilitated by 75 sets of the different herd, stud, and flock registers, and complete files of the leading American and British journals.

The equipment for instruction and investigation in the feeding, breeding, and management of livestock consists of modern buildings for the housing of beef cattle, swine, sheep, horses, and poultry, with the appliances necessary for individual and collective feeding tests; brick-paved feed lots and open sheds, in which steers may be fed in carload lots; a feed storage barn, with various forms of grinding mills and other machinery for the preparation of feed; and various kinds of harness, vehicles, and other appliances for the training of horses. The department also maintains a cold storage room and other equipment for conducting demonstrations in the cutting and handling of meats; a collection of wool samples, a fibre testing machine, and microscopes for the study of wool. The chemical and physiological laboratories of the department afford facilities for advanced work in animal nutrition.

DAIRY HUSBANDRY

The department of dairy husbandry offers courses under the four divisions of economic milk production, city milk supply, dairy bacteriology, and dairy manufactures.

For instructional and experimental purposes two herds of dairy cows are maintained, a grade herd used primarily for experimental purposes, and a pure bred herd composed of Holstein-Friesians, Guernseys, Jerseys, and Ayrshires.

For instruction in dairy cattle and economic milk production, free use is made of both herds.

The actual business of economic milk production is illustrated by a twenty-acre dairy farm conducted by the department for the purpose of producing the most milk possible per acre, at the least expense. The feeding and breeding experiments, while conducted primarily for the use of the Experiment Station, are of value to the student.

Practical instruction in city milk supply is given in a dairy building used exclusively for cooling and bottling milk from the University herds. Sanitary methods of delivery are still further illustrated in the daily distribution of this milk on the University milk route.

Bacteriological laboratories afford facilities for instruction in the courses in dairy bacteriology and city milk supply, and for bacteriological studies necessary when outbreaks of communicable disease appear to be due to the local milk supply. These laboratories are used also in the investigation of specific dairy problems.

Instruction in manufactured dairy products is provided in the University creamery, where the manufacture of butter, ice cream, condensed milk, and the various varieties of cheese is conducted on a commercial scale.

The creamery is equipped with separators, pasteurizers, cream ripeners, churns, condensing pan, ice cream and refrigerating machinery, to which all students have free access for laboratory purposes. In addition to this, the creamery and apparatus are used in the investigation of problems involved in the manufacture of dairy products.

HORTICULTURE

The department of horticulture offers instruction in forty-eight courses, covering the five divisions of horticulture (pomology, olericulture, floriculture, landscape gardening, and forestry), and also in subjects dealing with principles and practises applicable to all the divisions, such as plant propagation, spraying, the evolution of horticultural plants, and experimental horticulture.

For instruction in pomology, use is made of the various fruit plantations maintained by the department. The orchards of different ages afford opportunities for practise in pruning and studies of tree types, while the products furnish materials for practise in the grading and packing of fruits and the study of systematic pomology. A collection of fruit packages is maintained to illustrate the various types used in commercial packing. There is also a collection of wax models of fruits representing the principal varieties grown in Illinois.

For the use of students in olericulture, or vegetable gardening, certain areas of ground are reserved on which garden operations are illustrated and various crops are grown. In addition to the land, the equipment for instruction in veg-

etable gardening consists of a greenhouse 105x28 feet, hotbed frames and sash, seed drills and wheel hoes of various types, an assortment of hand tools, markers, planters, and other accessories and appliances for the growing and handling of vegetables.

The equipment for instruction in floriculture includes ten glass houses covering an aggregate area of 28,000 square feet. Six of these houses, including the palm house with an area of 3,200 square feet, are used for instructional work exclusively, while the other four are intended primarily for experimental purposes, but incidentally add to the facilities for giving instruction in floriculture as conducted on a commercial basis. Besides roses, carnations, and chrysanthemums, the houses contain a selection of plants representing all the forms used in commercial and decorative or conservatory work. In connection with the greenhouses there is a service building, containing laboratories, class rooms, and offices, as well as potting, storage, and work rooms. An assortment of florists' supplies is maintained. Floricultural periodicals, reference books, and a series of over five hundred slides add to the equipment. The ornamental gardens maintained by the department furnish illustrative materials for students in both floriculture and landscape gardening.

The equipment for instruction in landscape gardening includes four drafting rooms with desks for individuals, together with modern filing devices for office practise, seminar rooms, lecture rooms, offices, and a library. The library of the division of landscape gardening contains a complete collection of books, periodicals, pamphlets, photographs of examples of both foreign and American landscape gardening, as well as works on civic design, all of which material is carefully indexed for reference and research work. A collection of representative drawings and blue-prints from the offices of practising landscape architects further augments the books and periodicals of the library.

The collection of trees and shrubs growing upon the campus and about certain residences in the vicinity of the University furnishes material for plant studies in connection with the courses in planting design, which list is greatly increased by the systematically arranged, carefully preserved specimens available for reference in the herbarium of the division of landscape gardening. A series of 1,500 lantern slides is used in the lectures in landscape gardening.

Instruction in forestry is facilitated by a collection of native woods and a forest tree plantation of about twenty acres, consisting of Scotch pine, white pine, Norway spruce, European larch, green ash, black walnut, hickory, bur oak, white elm, and other species.

HOUSEHOLD SCIENCE

The courses of instruction given in this department are planned to meet the needs of two classes of students, viz.: (a) those specializing in other lines of work, but desiring a knowledge of the general principles and facts of household science; (b) those who wish to make a specialty of household science.

The department is housed in the north wing of the Woman's Building. The kitchen for extension work, with dining room adjoining, is in the basement. The first floor contains two class rooms, a seminar room, an exhibition room for illustrative material for work in house construction and textile fabrics, offices, and cloak rooms. On the second floor are individual, diet, institutional, and class kitchens, small and large dining rooms, chemical laboratory, two large sewing rooms, offices, and store rooms. On this floor provision is made

for the study of the preparation and service of food in large quantities in the institutional kitchen and large dining room adjoining. The equipment on this floor provides practise for those interested in the problems of lunch room management and for dietitians. The third floor contains additional sewing rooms, offices, equipment for teaching home care of the sick, and an apartment in which the problems of house construction, house furnishing, and household administration are studied.

VETERINARY SCIENCE

In the department of veterinary science the student is instructed in subjects relating to the prevention of disease among domestic animals and their treatment when affected by disease.

REQUIREMENTS FOR GRADUATION

Students who have satisfied all matriculation requirements and have maintained throughout their course a satisfactory record of scholarship and moral character will be graduated with the degree of Bachelor of Science, upon having completed the studies of the prescribed list and sufficient electives to make a total of 130 semester hours.

A thesis is not required for graduation, but any student who has completed not less than 90 hours of credit before the senior year may then elect a thesis course in any department in which he has done not less than 20 hours work, subject to the approval of the head of the department in question.

Graduates of approved colleges may expect to secure a degree in agriculture from the University of Illinois upon a completion of the technical and scientific requirements. This will ordinarily require approximately two years of residence work; a minimum of one year will be exacted.

GENERAL COURSE IN AGRICULTURE

All students except those in the special courses in household science, floriculture, and landscape gardening are required to take the same work during the freshman year and part of the sophomore year. This work gives the student a correct conception of the fundamental farm practises and an insight into the technical branches of agriculture, such as animal and dairy husbandry, horticulture, farm crops, soils, farm mechanics, and buildings, and leaves the junior and senior years open for election.

One hundred thirty hours are required for graduation, as follows:

Agriculture prescribed first two years.....	19 hours
Agriculture prescribed as electives.....	40 hours
<hr/>	
Total agriculture required.....	59 hours
Non-agriculture prescribed	42 hours
Non-agriculture prescribed as electives....	15 hours
<hr/>	
Total non-agriculture required.....	57 hours
Open electives	14 hours
<hr/>	
	130 hours

Prescribed Subjects

Required for the Degree of Bachelor of Science in the General Course in Agriculture

FIRST YEAR

FIRST SEMESTER	S. H.	SECOND SEMESTER	S. H.
Chemistry 1	5	Chemistry 2 and 3.....	5
Rhetoric 1*	3	Rhetoric 2	3
Agronomy 25	4	Animal Husbandry 5.....	3
Horticulture 1a	2	Dairy Husbandry 3.....	1
Agricultural Extension 4a.....	½	Horticulture 1b	2
Military 2	1	Agricultural Extension 4b.....	½
Physical Training	1	Military 1 and 2.....	2
		Physical Training	1

SECOND YEAR

Chemistry 13a or Botany 1.....	5	Botany 1 or Chemistry 13a.....	5
Animal Husbandry 6.....	3	Agronomy 26	3
Military 2	1	Military 2	1
Electives		Electives	

In addition to the above, students will take the following:

Agriculture, electives	40 hours
Non-agriculture, electives	15 hours
English 20	4 hours
Science, elective	5 hours
Open electives	14 hours

Students registered previous to September, 1912, will meet the requirements outlined below so far as it is possible to do so:

Prescribed Subjects

Required for the Degree of Bachelor of Science in the General Course in Agriculture

Agronomy 6 or 7, 9, 12.....	12½ hours
Animal Husbandry 7.....	3 hours
Chemistry 1, 2, 3, 13a.....	15 hours
Dairy Husbandry 1.....	3 hours
Economics 2	2 hours
English 1 or 20†.....	4 hours
Entomology 4	3 hours
Horticulture 1, 10a.....	8 hours
Military 1, 2.....	5 hours
Physical Training 1, 1a.....	2 hours
Rhetoric 1-2	6 hours
Animal Husbandry 30 (Genetics).....	5 hours

Total prescribed subjects..... 68½ hours

*Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 75.

†If English 1 is elected, it must be followed by English 2 the second semester.

Elective List A; a minimum of.....	4	hours
Elective List B; a minimum of.....	3	hours
Elective List C; a minimum of.....	25	hours
Elective List D; a minimum of.....	10	hours
		<hr/>
Total	42	hours

Elective Lists

List A—Animal Husbandry 1 to 4, 11 to 14, 17 to 18, 22
Dairy Husbandry 2

List B—English Literature 2*, 12-13, 23
Rhetoric 19, 3

List C—This list includes all subjects offered in technical agriculture and not included in the prescribed list, viz.:

Agricultural Extension 1, 3

Agronomy 1 to 8, 10, 13, 16 to 22

Animal Husbandry 1 to 4, 8 to 14, 16, 18, 21 to 23b

Dairy Husbandry 2, 7, 8, 11 to 22

Horticulture 2 to 9, 10b to 15b, 17 to 34

Veterinary Science 2, 4, 5, 6

List D—Botany 1, Botany 5, Zoology 1

Summary

Total prescribed subjects	68½	hours
Total list electives	42	hours
Total open electives	19½	hours
		<hr/>
Total	130	hours

GENERAL COURSE IN FLORICULTURE

Course Required for the Degree of Bachelor of Science in Floriculture

The object of this course is to fit men and women for the profession of floriculture. The laboratory exercises in the technical subjects consist of practical work in the greenhouses and garden and give the student a working knowledge of the best methods now in use.

FIRST YEAR			
FIRST SEMESTER		SECOND SEMESTER	
<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Entomology 4a.....	3	Chemistry 2.....	2
Chemistry 1.....	5	Chemistry 3.....	3
Horticulture 4.....	4	Horticulture 5.....	5
Rhetoric 1.....	3	Rhetoric 2.....	3
Military	1	Military	2
Physical Training... ..	1	Physical Training.....	1
Total	17	Total	16
SECOND YEAR			
FIRST SEMESTER		SECOND SEMESTER	
<i>Prescribed Subjects</i>		<i>Prescribed Subjects</i>	
Botany 1.....	5	Agronomy 9.....	5
English 20.....	4	Horticulture 15a.....	5
Military	1	Military	1
Total	10	Total	11

*Open to those who elected English 1.

THIRD YEAR

FIRST SEMESTER <i>Prescribed Subjects</i>		SECOND SEMESTER <i>Prescribed Subjects</i>	
Botany 7a.....	5	Botany 3b.....	5
Horticulture 15b.....	5	Horticulture 7.....	3
Economics 2.....	2	Horticulture 24a.....	3
Total	12	Total	11

FOURTH YEAR

FIRST SEMESTER <i>Prescribed Subjects</i>		SECOND SEMESTER <i>Prescribed Subjects</i>	
Horticulture 31.....	3	Horticulture 30.....	5
Horticulture 24b.....	3	Horticulture 10b.....	3
Total	6	Horticulture 32.....	4
		Total	12

Suggested Electives

Accountancy	Chemistry 13a
Agronomy 12	Economics
Animal Husbandry 20	Horticulture 28
Botany 3a, 4a, 7b	

Total prescribed subjects..... 95

Open electives 35

Total required130

GENERAL COURSE IN HOUSEHOLD SCIENCE

Of the 130 hours required for graduation, 91 are provided for in the prescribed list and the restricted electives of List A. The other 39 hours of credit necessary for graduation may be taken, subject to the approval of the Dean of the College, from any courses offered in the University. Holders of scholarships in household science in this College take the course as laid out here. Variations from it can be made only by special permission of the Council of Administration on recommendation of the faculty of the College.

Prescribed Subjects

Required for the Degree of Bachelor of Science in General Course in Household Science

Art and Design 1, 12, 19, 20.....	9 hours
Bacteriology 5	5 hours
Botany 1	5 hours
Chemistry 1, 2, 3.....	10 hours
English 1-2	8 hours
Household Science 1, 2, 3, 5, 6, 7, 10, 12, 14.....	20 hours
History 1a-1b, or 3a-3b.....	6 or 8 hours
Physiology 4	5 hours
Physical Training 7a-7b, 9.....	3 hours
Rhetoric 1-2	6 hours
Zoology	5 hours
English or Rhetoric.....	5 hours
*List A, a minimum of.....	4 hours

Total required subjects.....91 to 93 hours

Electives39 to 37 hours

Total130 hours

*If physics has not been offered for entrance, its equivalent should be elected.

Electives

- List A—English 21, 22, 23, 24
 Horticulture 1a, 1b, 2, 3, 5, 19, 28, 10a
 Household Science 5, 13, 14
 Economics 2, 22, 26; Sociology 1
 Physics 7a, 8a
 Education 1, 10
 Agronomy 7, 25, 9, 12
 Animal Husbandry 10, 5
 Dairy Husbandry 1, 3, 19, 11, 4
 Agricultural Extension 1, 3, 4, 5

COURSE OF INSTRUCTION*First Year*

1. Household Science 2; Chemistry 1; Rhetoric 1; Physical Training 7a and 9; Art and Design 1.
2. Household Science 1, 7; Chemistry 2, 3; Rhetoric 2; Physical Training 7b.

Second Year

1. Household Science 6; Zoology 1; English 1; electives.
2. Botany 1; Art and Design 12; English 2; electives.

Third Year

1. Art and Design 19; Physiology 4; advanced English; electives.
2. Household Science 3, 5, 12; advanced English; Economics 2; Art and Design 20; electives.

Fourth Year

1. Sociology 1; Education 1, History 3a.
2. Education 10; Bacteriology 5; History 3b; Household Science 10.

GENERAL COURSE IN LANDSCAPE GARDENING*Course Required for the Degree of Bachelor of Science in Landscape Gardening*

A four years' course in preparation for professional practise is open to any student in the University having the prerequisites or their equivalents.

FIRST YEAR**FIRST SEMESTER***Prescribed Subjects*

Math. 4—Trigonometry.....	2
Rhet. 1—Rhetoric and Themes.....	3
Arch. 31—Drawing.....	4
Botany 1—Introductory Course.....	5
Military and Physical Training.....	2
Hort. 39a—Special Lectures.....	1
Total	17

SECOND SEMESTER*Prescribed Subjects*

Entomology 4b—Introduction to Economic Entomology	3
Rhet. 2—Rhetoric and Themes.....	3
Arch. 32—Architectural Drawing.....	4
Hort. 5—Plant Propagation.....	3
Military and Physical Training.....	3
Hort. 39b—Special Lectures.....	1
Total	19

SECOND YEAR

FIRST SEMESTER

Prescribed Subjects

Hort. 10a—Landscape Gardening.....	3
Hort. 21a—Landscape Design.....	4
Botany 4d—Taxonomy.....	3
Hort. 31—Garden Flowers.....	3
Military	1
C. E. 31—Surveying.....	3
Hort. 39a—Special Lectures.....	1
Total	18

SECOND SEMESTER

Prescribed Subjects

Hort. 21b—Landscape Design.....	4
Hort. 24a—Trees and Shrubs.....	3
C. E. 32—Surveying.....	3
Military	1
Hort. 39b—Special Lectures.....	1
Total	12
<i>Electives</i>	
<i>Plants—</i>	
Hort. 2—Small Fruits.....	2
<i>Design—</i>	
Art and Des. 12—Theory and Prac.....	5
Geology 12.....	5

THIRD YEAR

FIRST SEMESTER

Prescribed Subjects

Hort. 23a—Landscape Design.....	4
Hort. 24b—Trees and Shrubs.....	3
Hort. 27a—Landscape Practise.....	3
Arch. 6a—History of Architecture.....	4
Hort. 39a—Special Lectures.....	1
Total	15

Electives

<i>Plants—</i>	
Hort. 8—Fruit Culture.....	5
<i>Design—</i>	
Hort. 29a—Garden Design.....	3
Art and Design 13—Hist. and Pract.....	2
<i>Civic Design—</i>	
Economics 2—Prin. of Econ.....	2
Sociology 1—Prin. of Soc.....	3

SECOND SEMESTER

Prescribed Subjects

Hort. 23b—Landscape Design.....	4
Hort. 26a—Planting Design.....	3
Hort. 27b—Landscape Practise.....	3
Arch. 6b—History of Architecture.....	4
Hort. 36—Landscape Reading.....	2
Hort. 39b—Special Lectures.....	1
Total	17

Electives

<i>Plants—</i>	
Hort. 7—Spraying.....	3
Hort. 9—Forestry.....	2
<i>Design—</i>	
Hort. 29b—Garden Design.....	3
Art and Design 8—Modeling.....	2
<i>Civic Design—</i>	
Rhetoric 17—Adv. Comp.....	2
Sociology 7—The Rural Community.....	2

FOURTH YEAR

FIRST SEMESTER

Prescribed Subjects

Hort. 25a—Landscape Design.....	5
Hort. 26b—Planting Design.....	3
Hort. 37a—Civic Design.....	3
Hort. 39a—Special Lectures.....	1
Total	12

Electives

<i>Plants—</i>	
Hort. 40a.....	3
<i>Design—</i>	
Hort. 25a (Extra hours)	
Art and Design 4—Water color.....	2
<i>Civic Design—</i>	
Sociology 10—Population.....	3
Pol. Sci. 4—Municipal Government.....	3

SECOND SEMESTER

Prescribed Subjects

Hort. 25b—Landscape Design.....	5
Hort. 28—Exotics.....	1
C. E. 52—Roads and Pavements.....	2
Hort. 33—Field Practise.....	2
Hort. 37b—Civic Design.....	3
Hort. 39—Special Lectures.....	1
Total	14

Electives

<i>Plants—</i>	
Hort. 15a—Plant Growing....	5
Hort. 40b—Trees and Shrubs	
<i>Design—</i>	
Hort. 25b (Extra hours)	

General Electives

Modern language.....	8
Zoology 1.....	5
Horticulture 19.....	3
Horticulture 39	1.8

REQUIREMENTS FOR GRADUATION

The requirements for the degree of Bachelor of Science in Landscape Gardening are as follows:

1. The student must complete the work outlined in the course as prescribed subjects.
2. From the elective subjects enough additional credits must be obtained to complete the graduation requirement of 130 hours.

GENERAL COURSE FOR PROSPECTIVE TEACHERS OF AGRICULTURE

A general course is offered for prospective teachers of agriculture. Among the subjects recommended are the following:

Agronomy 2, 9, 12, 25, 26; Animal Husbandry 1a, 2a, 4a, 5, 6, 11a, 11b, 30*; Dairy Husbandry 2, 3; Horticulture 1a, 1b, 3, 5, 10a, 19; Agricultural Extension 1, 4-5; Botany 1, 3b; Chemistry 1, 2, 3, 13a; Entomology 4a-4b; Zoology 1; English 20; Rhetoric 1-2, 19; Public Speaking 5-6; Economics 2; Education 1, 6; Library Science 12; Military 1, 2; Physical Training 1-2, 1 a; foreign language.

For further information concerning this course, address the Dean of the College of Agriculture.

TWO WEEKS' COURSE IN AGRICULTURE AND HOUSEHOLD SCIENCE

Agriculture

The Corn Growers' and Stockmen's Convention is held usually at the College of Agriculture (not held in 1915). At the time of this meeting, the College gives instruction for two weeks in subjects of special interest to young men on the farm, such as corn and stock judging, milk and seed testing, soils, etc. A morning session of two hours each day is devoted to the discussion of questions of importance to the farmer. In the afternoon an hour is given to lectures upon topics of general interest. The rest of the day is filled with class work in the subjects mentioned above. Each year about a thousand men who are unable to spend a longer time away from home avail themselves of this opportunity to come in touch with the work of the College.

Household Science

At the same time, a two-weeks' course in household science consisting of lectures and recitation work is given in the rooms of the department of household science in the Woman's Building.

Admission

No entrance examinations are required and any farmer or farmer's son or daughter may enter these courses. It is important that everyone should be here at the opening of the session. Upon arrival at Champaign or Urbana, application should be made at the University Young Men's Christian Association, where information concerning board and room may be obtained.

*Students taking the Teachers' course may take Animal Husbandry 30 for one-half semester and receive 2½ credits therefor.

THE GRADUATE SCHOOL

THE EXECUTIVE FACULTY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY

DAVID KINLEY, Ph.D., LL.D., *Dean of the Graduate School, Professor of Economics*

BOYD HENRY BODE, Ph.D., *Professor of Philosophy*

ALBERT PRUDEN CARMAN, A.M., D.Sc., *Professor of Physics*

JULIUS GOEBEL, Ph.D., *Professor of Germanic Languages*

GEORGE ALFRED GOODENOUGH, M.E., *Professor of Thermodynamics*

HARRY ALEXIS HARDING, Ph.D., *Professor of Dairy Bacteriology*

LAURENCE MARCELLUS LARSON, Ph.D., *Professor of History*

HERBERT WINDSOR MUMFORD, B.S., *Professor of Animal Husbandry*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor of Classics, Secretary*

STUART PRATT SHERMAN, Ph.D., *Professor of English*

ARTHUR NEWELL TALBOT, C.E., *Professor of Municipal and Sanitary Engineering*

EDGAR JEROME TOWNSEND, Ph.D., *Professor of Mathematics*

HENRY BALDWIN WARD, Ph.D., *Professor of Zoology*

EDWARD WIGHT WASHBURN, Ph.D., *Professor of Physical Chemistry*

HISTORY AND ORGANIZATION

Although for many years the University of Illinois had offered advanced students facilities for study and research in various lines, graduate work was undertaken under the name of the Graduate School for the first time in 1892. In 1894 the administration of the school was vested in the Council of Administration, and the Vice-President of the University became Dean of the School. In 1906 the Graduate School was organized as a separate faculty, consisting of a dean and members of the University faculty assigned to this duty by the President. No means of support were provided, however, separate from those provided for the undergraduate work. In the winter of 1906-7, the Forty-fifth General Assembly of the State passed an act appropriating \$50,000 a year for the support of a Graduate School of Fine Arts and Sciences in the University. This appropriation has been continued by succeeding legislatures.

By act of the Trustees the teaching faculty of the Graduate School includes all members of the faculty who give instruction in courses approved for graduate credit. The affairs of the School, however, are in charge of the executive faculty appointed each year by the President.

ADMISSION

Admission to the Graduate School of the University of Illinois is substantially admission to candidacy for the master's degree. That is to say, no applicant is admitted unless his previous education has been such that he is fully prepared to undertake work of graduate character, so that, assuming him to have had the specific prerequisites for his major subject, he can expect to get

his master's degree in one year. Applicants are not admitted if their previous education is such that, aside from the specific prerequisites for their major study, the performance of the work necessary for attaining the master's degree in one year is impossible or highly improbable. Therefore, for admission to the Graduate School to work for a degree an applicant must hold a first degree either from the University of Illinois or from some other university or college of equivalent standing. Admission to particular graduate courses or departments may be secured only by those who have had the requisite undergraduate work in those courses or departments.

In order to be enrolled as a member of the Graduate School a student must be doing graduate work. The possession of a first degree does not entitle a student to be enrolled in the Graduate School, if the courses which he is taking are undergraduate.

Students of mature age who do not hold a first degree, but satisfy the Dean of the School and the officers of the departments in which they wish to work of their earnestness of purpose and special fitness, may be permitted to take work in the Graduate School without reference to candidacy for a degree. In order to secure this permission, however, a candidate must have had such preliminary preparation for the work he wishes to take up as would justify his admission to the Graduate School as a candidate for a degree if he could meet the other requirements fully.

Application blanks may be secured from the Dean of the Graduate School.

REGISTRATION

After the students' application for admission has been approved, he receives at the Dean's office a permit to register and also a study blank. This study blank must be filled out with the advice of the professors in charge of the selected work.

The person in charge of the major work of the student becomes his adviser, and, together with those with whom the student is taking first and second minor courses, forms a committee with general supervision over the student's general course of study. The chairman of this committee is expected to follow the student's work and see that he is helped to lay out an intelligently planned course, and to give him such advice as may be necessary concerning his scholastic career.

Each student is required to attend a minimum of four class, lecture, or laboratory, exercises per week, in the first year of his graduate study; and in no case is he permitted during his course to attend more than twelve per week.

Each first year student doing full work must take at least four unit courses. A unit course is one which requires ten hours of time per week through one semester, irrespective of the mode of distribution of that time in class work, laboratory work, and private study. Four such courses or their equivalent constitute a full minimum program for one semester, and eight such courses, or their equivalent of graduate grade, constitute the minimum year's work required for a master's degree.

Therefore, registration for full work for the master's degree ordinarily provides for three unit courses, or their equivalent, per semester, in addition to a thesis, the time devoted to the thesis being ordinarily reckoned as equivalent to that for one unit course, or ten hours of time a week. If a student is excused from writing a thesis he must take four unit courses or their equivalent per semester.

Unless otherwise specified by the department concerned, a course for graduates and advanced undergraduates, not open to students below senior grade and counting four or five hours of undergraduate credit, if taken by graduate students, will be treated as a unit course; when counting less than four hours of undergraduate credit, such a course, if taken by graduate students, will be treated as a half-unit course.

Unless otherwise specified by the department, a course the prerequisites of which are such as to make it possible for juniors or sophomores to be admitted, if taken by a graduate student, is counted as a half-unit course, or a quarter-unit course, according to the number of hours of undergraduate credit for which the course is given.

Graduate students are permitted, under proper circumstances, to attend classes as visitors and to elect miscellaneous subjects which do not count toward their degree. No student who is carrying full work as herein described will be permitted to visit more than one class or to take more than one miscellaneous subject.

The above regulations concerning the program of studies are laid out primarily for first year students. Second and third year graduate students fill out their programs irrespective of unit value, according to their needs, under the advice of their instructors. The work of second and third year graduate students is arranged in quantity and character with sole reference to prospective candidacy for a doctor's degree.

Assistants and others on the University staff who undertake to do graduate work are permitted to take an amount of work determined by the terms of their employment. Such a student, applicant for a master's degree, must ordinarily stay through at least two years. In no case will the doctor's degree be conferred upon an applicant otherwise fit in less than four years if he is on the staff in any capacity.

Residence—Continuous residence and study are required of all members of the Graduate School, unless they are granted leave of absence by the Dean, upon recommendation of the professors in charge of their work, for the purpose of carrying on elsewhere studies or investigation in the line of work for their degrees.

CHARACTER OF GRADUATE WORK

The principal aim of graduate study is the development of the power of independent work and the promotion of the spirit of research. Each candidate for a degree is expected to have a wide knowledge of his subject and of related fields of work; for the graduate student is not expected to get from lecture and laboratory courses all the knowledge and training necessary to meet the requirements for his degree.

Students are warned against restricting themselves merely to the courses prescribed or suggested by the departments in which they are studying. Each student is expected to do a wide range of private reading and study, and in many cases will find it advisable to take one or more courses of lectures quite outside the field of his chosen subject.

THE MASTERS' DEGREES

Candidates for the degree of Master of Arts or Master of Science are required to do at least one year's work in residence and to write a thesis.

A candidate for a master's degree may do all his work in one subject, or he may select a major and one minor, or a major and two minors. A major or minor denotes the field of knowledge of a department, or such part thereof as constitutes a separate and independent division of that field. The candidate must do at least half his work in his major subject.

Each candidate for a master's degree is also required to present a thesis on some subject approved by the professor in charge of his major work and the faculty of the School. The requirement of a thesis may be waived, however, upon the recommendation of the head of the department in which the student is doing his major work, and the approval of the Dean, provided application to waive the thesis is made at the beginning of the year. *In no case will permission to take the degree without the thesis be given if applied for later than the latest date for the approval of thesis subjects, as shown by the calendar.*

The thesis required from a candidate for a master's degree ordinarily will demand about one-fourth of the student's time. The thesis must be typewritten, on "thesis paper," and the title-page must be printed. The thesis in its final form, together with a certificate of approval by the proper officer, must be left by the professor in charge at the Dean's office at the time set in the calendar.

Credit for work done elsewhere is not "transferred." The candidate is examined here on all the work required for the degree.

Students should note, moreover, that all the work for the master's degree must be done in residence, excepting in the case of members of the staff who have spent half of their time in study through a year at some other institution, and who then do the rest of the work required during a year's residence here.

The Masters' Degree in Engineering

Two classes of second degrees are open to graduates of the College of Engineering, namely, academic and professional.

The academic second degree in engineering is Master of Science, following Bachelor of Science, in Architecture, Architectural Engineering, Civil Engineering, Electrical Engineering, etc. This degree is conferred in accordance with the regulations described above for *academic work in residence only*.

The *professional* second degrees in Engineering are as follows:

Master of Architecture after B.S. in Architecture.

Architectural Engineer after B.S. in Architectural Engineering.

Civil Engineer after B.S. in Civil Engineering or B.S. in Municipal and Sanitary Engineering.

Electrical Engineer after B.S. in Electrical Engineering.

Mechanical Engineer after B.S. in Mechanical Engineering.

Civil Engineer, Electrical Engineer or Mechanical Engineer after B.S. in Railway Engineering, according to the course.

Professional degrees are conferred upon two classes of candidates: (1) graduates of the College of Engineering of the University of Illinois who have been engaged in acceptable professional work away from the University for a period of not less than three years after receiving the degree of Bachelor of Science; (2) graduates of the University of Illinois, or of institutions of equal standing, who have been engaged in acceptable professional work in residence at the University for a period of not less than three years after receiving the degree of Bachelor of Science.

In "acceptable professional work" may be included contributions to technical literature, activity in professional societies, investigation of engineering problems, and the teaching of engineering subjects.

A candidate must declare his candidacy and file with the Dean of the College of Engineering, as chairman of the committee in charge, a detailed statement covering his professional study and experience, not later than the first Monday in November preceding the commencement at which he proposes to qualify. Prior to December 31 next succeeding, he must submit for approval an outline of his proposed thesis and he must file his completed thesis not later than April 1. If the statement of professional experience and study and the thesis are accepted, the candidate must present himself at commencement in order to receive the degree.

Candidates for professional degrees in engineering who already hold the degree of Master of Science may qualify for the professional degree after two years of professional work.

A candidate for a professional degree in engineering must pay the incidental fee of twenty-four dollars on being notified that his professional study and experience are accepted as qualifying him to enter as a candidate for the degree. No one will be enrolled as a candidate for the degree at the following commencement who does not pay his fee at this time. When a candidate for a professional degree in engineering has once been accepted and paid his fee, he is eligible to receive the degree at any time within five years, without additional fee, on completion of the requirements; provided, however, that unless he completes the requirements within two years his name will be dropped from the list of candidates and in order to receive the degree within the five-year period he must register once more.

THE DEGREE OF DOCTOR OF PHILOSOPHY

General Statement of Requirements.—The requirements for the degree of Doctor of Philosophy are a thorough mastery of a selected field of study, evidence of the power of independent investigation in this field, a broad knowledge of the wider field of study of which this major subject is a part, a general acquaintance with related fields of knowledge and a mastery of all branches of study which are necessary to a full knowledge of the main subject. Each student who is seeking this degree is expected to choose for study and final examination a major subject, or field of study, and a first and second minor. The major subject is the field in which the student expects to become expert and an authority. The first minor should ordinarily be a subject closely related to the major, and, under certain conditions and with proper approval, may be a subdivision of the major field of study. The second minor should be chosen outside of the major field of study.

When a candidate chooses any subject as his major, and a division of that subject as his minor, he is not permitted to choose as a second minor any division of work in that same department, excepting by vote of the executive faculty of the School.

The candidate's list of subjects must receive the approval of the head of the department in which he chooses his major work and of the Dean of the School.

Period of Study.—The *minimum* period of study required for securing the degree of Doctor of Philosophy is three years. The degree is conferred, how-

ever, not for residence during a certain period, but for scholarly attainments and power of investigation, as proved by thesis and examinations.

Candidates should note that credit is not given for work done in other universities, excepting in the sense that their residence at other institutions is counted towards the residence requirement for the doctor's degree.

At least the first two or the last one of the three years required must be spent at this University.

Examination.—Towards the end of his second year of study, or, by special permission, at the beginning of his third year, the candidate for the degree must submit to a preliminary examination conducted by the members of the faculty with whom he is doing his principal work, in order to determine whether he will be accepted as a candidate for the degree in the following year. This examination is partly oral, and may be wholly so. At this time, or before, the candidate will be required to demonstrate his ability to read French and German, and any other language needed for the prosecution of his work.

On or before the last Monday in May of the year in which the candidate expects to come up for his degree, he must submit to a final examination by a committee appointed by the Dean of the Graduate School. This examination will be partly written. The candidate will also have, however, an oral examination. These examinations will not be confined to the courses which the candidate has attended in the University of Illinois only, if he has done part of the work elsewhere; nor even to the field covered by the courses specifically taken in this or other universities; but will be so conducted as to determine whether the candidate has a satisfactory grasp of his major subject as a whole, and a general acquaintance with the fields of knowledge represented by his course of study.

Before the candidate is admitted to the final examination and the defense of his thesis, he may be required to take any other examination, oral or written, that is thought proper by the various departments in which he has studied. If after having passed his preliminary examination, he fails in the third year of his study to meet the expectations of the professors in charge of his work, or in any way fails to maintain the standard of scholarship and power of research expected of him, he may be refused admission to the final examination.

The final examination in the major and minor subjects may not be divided. The examination must be taken all at one time even though it requires several sessions.

Credit for work done in other universities is not "transferred." The candidate is examined here on the subjects offered by him for the advanced degree. However, his period of residence at another institution of proper grade will be accepted as fulfillment of the residence requirement of the University of Illinois so far as it goes.

Thesis.—The power of independent research must be shown by the production of a thesis on some topic connected with the major subject of study. The candidate is expected to defend his thesis or dissertation before the members of the faculty, or as many of them as may wish to question him about it, in connection with his final examination.

The subject of the thesis should be chosen not later than the end of the second year of study and must be submitted for formal approval by the faculty

not later than the first Monday of November of the year when the degree is expected. A typewritten copy of the complete thesis, on thesis paper, must be in the hands of the Dean not later than noon of the Saturday nearest the middle of May, for submission to the examining committee.

The doctor's thesis must be printed and one hundred copies deposited in the Library of the University not later than the first of June preceding the conferring of the degree. If it is not printed by the first of June, the student must deposit seventy-five dollars (\$75) or a bond for that amount satisfactory to the Comptroller of the University and the Dean of the Graduate School. If a bond is accepted, it must be replaced at the end of one year with a cash deposit. At the end of two years, if the thesis has not then been printed by the student, the University will print such part of it as it deems best.

The cash deposit made by the student who does not print his thesis by the end of the second year after his degree is conferred becomes the property of the University, to be used for the general purpose of printing theses, and all graduate students who receive their degrees must agree at the time when the deposit is made that the University shall become the owner of this deposit for this purpose.

The title page of each thesis must bear the words, "Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in— (here put the major subject), in the Graduate School of the University of Illinois." The title page must also contain the full name of the author, the full title of the thesis, the year of imprint, and, if a reprint, the title, volume, and statement of the pagination of the volume from which it is reprinted. Each thesis must have an appendix giving a short biography of the candidate, including the institutions he has attended, his degrees and honors, the titles of his publications, and such other matters as are pertinent.

SCHOLARSHIPS AND FELLOWSHIPS

A number of fellowships and scholarships have been established by the Trustees of the University. To first year graduate students of ability and promise there are open a number of scholarships with a stipend of \$250 each and freedom from tuition, incidental, and laboratory fees. To second and third year graduate students, that is, those who have had one or two years of graduate study, there are open fellowships with a stipend varying from \$300 to \$500, with freedom from fees. The larger stipends are given only to students who are expected to take their degrees within the year. Each holder of a fellowship or scholarship must pay the matriculation fee of ten dollars, unless he holds a first degree from the University of Illinois, and also the diploma fee of five dollars on receiving his diploma.

Candidates for these scholarships and fellowships must be graduates of the University of Illinois, or of colleges or universities having equivalent requirements for bachelors' degrees.

Application must be made upon blanks to be obtained from the Dean of the Graduate School. These application forms should be addressed to the Dean of the Graduate School as early as possible in February of the academic year preceding that for which the fellowship is desired.

Persons appointed are required to send the Secretary of the Board of Trustees prompt notice of their acceptance or refusal; and to agree that, if

accepted, the appointment will not be resigned to take a similar one in any other institution during the year for which it is awarded.

Nominations to fellowships are made upon the grounds of worthiness of character, scholastic attainments, and promise of success in the principal line of study or research to which the candidate proposes to devote himself.

Scholarships and fellowships are good for one year, but may be renewed for a second or third year in special cases. An appointment as honorary fellow, without stipend, may be made as specified for paid fellowships in the case of any one who has shown distinguished merit in his work.

Research Fellowships in the Engineering Experiment Station

The Engineering Experiment Station is devoted entirely to research. Its purposes are the elevation of engineering education, and the study of problems of special importance to engineers and to manufacturing, railway, mining, and industrial interests.

Ten research fellowships have been established in the Engineering Experiment Station. These fellowships are open to graduates of approved technical schools and universities, both American and foreign. There is a stipend of \$500 a year for each fellowship. Applicants to whom these fellowships are awarded are required to agree to hold them for two years, devoting a part of their time to the work of the Engineering Experiment Station. At the expiration of this period, if all requirements have been met, the degree of Master of Science will be conferred.

Application for these fellowships should be made to the Director of the Engineering Experiment Station not later than February first. Candidates must present with their applications full information concerning themselves, including any written or published papers or results of investigation.

THE GRADUATE CLUB

The Graduate Club is an unofficial organization of the graduate students and graduate faculty. Its purpose is to furnish an opportunity for those working in different departments to become acquainted with one another and thus counteract the tendency toward narrowness which intense specialization may sometimes induce.

THE ILLINOIS SURVEY

The Illinois Survey is a department of the Graduate School established in 1910 to conduct research in the history of the State of Illinois. The members of the staff, assisted by graduate students, are engaged in the production of scientific studies in Illinois history, and it is expected that the results of these labors will lay a solid basis for the interpretation of the State's past.

The following persons constitute the staff of the Survey for the year 1914-15: Clarence W. Alvord, Ph.D., Professor of History, Chairman; Ernest L. Bogart, Ph.D., Professor of Economics; John A. Fairlie, Ph.D., Professor of Political Science; Theodore C. Pease, Ph.D., Associate in History; Arthur C. Cole, Ph.D., Instructor in History; Yetra Scheftel, A.M., Research Assistant; Jacob A. Hofto, A.M., Research Assistant; Jessie J. Kile, A.M., Research Assistant.

THE LIBRARY SCHOOL

For a description of the *Library Building*, see page 55; for an account of the *libraries* themselves, see pages 62-63; for the *collection in library economy*, see page 62; for *fees*, see page 118.

GENERAL STATEMENT

The Library School offers a two years' course of instruction to students who wish to enter library work as a profession, and certain library courses to students in other schools and colleges of the University of Illinois who may wish to elect them as a part of their course of training. The instruction in the first or junior year covers the generally accepted methods and practises in library work; students who complete this year's work are prepared to accept positions in library service. In the second or senior year greater emphasis is placed upon historical and comparative methods of treatment; new subjects are introduced to give the student a broad outlook and a scholarly, technical, and administrative equipment for the more responsible positions.

One or two years' training will not take the place of years of experience, but they will make the student more adaptable and his general library service more intelligent. The time spent in actual practise, under supervision, amounts to about three and a half months, counting seven hours to a working day. Although stress is laid upon simplicity and economy, methods are taught to enable students to work in large libraries where bibliographic exactness is required. Emphasis is laid upon the extension of the activities of the public library, and upon the importance of cooperation between the library and the schools and other educational and social agencies.

A member of the senior class in any other school or college of the University may, with the approval of the Director of the Library School, elect any course for which he is prepared.

The school also offers to freshmen and sophomores a course on the use of the library and the ordinary reference books, which will help in general reading or study.

ENTRANCE REQUIREMENTS

Admission to the Library School is condition upon the presentation of credentials showing that the applicant holds a bachelor's degree in arts or science from the University of Illinois or has had other equivalent training.

Application blanks for admission may be secured from the Director of the school, and these, filled out, should be filed, together with such documentary material as the candidate may offer, showing qualifications for admission, not later than the registration days in September. It is to the candidate's interest to present the application and certificates early, in order that the question of admission may be settled before he comes to the University.

PROPOSED PRELIMINARY COURSE

Undergraduates who intend, on the completion of their college work, to apply for admission to the Library School, are requested to select their courses so as to conform in general to the following recommended program of studies preparatory to library work.

Proposed Preliminary Course

English literature, 5*; rhetoric, 2
 Latin, 4, in addition to four years of high school Latin
 German, 6, in addition to two years of high school German
 French, 4, in addition to two years of high school French
 Languages begun in college instead of in the high school should be continued for a longer period.
 Medieval and modern European history, 3; history of England, 3; history of the United States, 3
 Economics, 3; political science, 2; sociology, 3
 Philosophy, 2; general psychology, 2
 Zoology, 3; botany, 2; chemistry or physics, 3

The total of this work is 100 semester hours, leaving the equivalent of one year of a four-year course free for work in other subjects or for more work in the subjects named.

ADVANCED STANDING

College graduates who have had approved library experience or who have attended other library schools may be accorded advanced standing by securing credit for some of the courses required for graduation. After satisfying all entrance requirements and after matriculation, the applicant for advanced standing may secure such credit either by examination or by transfer of credits from another institution offering courses in library economy.

SPECIAL STUDENTS

It is the practise of this School to admit as special students only those mature persons who, though unable to meet the formal requirements for entrance, are substantially prepared for thoro and advanced work. Such persons must present evidence of possessing the requisite information and ability to pursue profitably, as special students, the chosen subjects, and some substitute for the regular requirement for entrance, such as approved library or teaching experience, or foreign travel. Preference will be given to those already engaged in library work, especially in Illinois, who may desire more adequate training in particular subjects.

LIBRARY VISITS AND FIELD WORK

Each year all the students in the School visit the libraries and certain of the book binderies, book stores, and printing establishments of either Chicago and vicinity or St. Louis and vicinity. During this visit, which occupies one week, the students are accompanied by a member of the faculty.

In order to assure a varied library experience, each student in the senior year is required to spend one month in an assigned public library, working, as far as practicable, under the same conditions as a member of the staff of the library.

*The figures after each subject indicate the minimum number of lecture or recitation hours a week which the student should devote to that subject throughout one college year.

SCHEDULE OF COURSE

The course is two years in length. For graduation a student must receive credit for all courses except those marked with an asterisk (*), which are elective. The degree of Bachelor of Library Science is conferred on a student who has completed the required work in the two years' course, and has received credit in courses amounting to 65 hours.

JUNIOR YEAR

FIRST SEMESTER

- 2a¹ Reference work (3 hrs.)
- 3a Selection of books (2 hrs.)
- 4a Practise work, 4 hours per week (2 hrs.)
- 16 Order, accession and shelf work (2 hrs.)
- 17 Classification and book numbers (3 hrs.)
- 18 Cataloging (3 hrs.)
- 23a Library administration and current library literature (1 hr.)

SECOND SEMESTER

- 2b¹ Reference work (3 hrs.)
- 3b Selection of books (2 hrs.)
- 4b Practise work, 4 hours per week (2 hrs.)
- 7 History of libraries (2 hrs.)
- 19 Trade bibliography (1 hr.)
- 20 Loan department (1 hr.)
- 21 Printing, binding, indexing (2 hrs.)
- 22 Library extension (3 hrs.)
- 23b Library administration and current library literature (1 hr.)

SENIOR YEAR

- 6a Subject bibliography (2 hrs.)
- 8 *Advanced reference work (2 hrs.)
- 10a Practise work, 8 hours per week (4 hrs.)
- 13a Public documents (2 hrs.)
- 15a Seminar (2 hrs.)
- 24a Selection of books (2 hrs.)
- 26a Library administration (3 hrs.)
- 27 Bibliographical institutions (1 hr.)

- 6b Subject bibliography (2 hrs.)
- 9 Bookmaking (2 hrs.)
- 10b Practise work, 8 hours per week (4 hrs.)
- 13b *Public documents (2 hrs.)
- 15b Seminar (2 hrs.)
- 24b Selection of books (2 hrs.)
- 25 Advanced classification and cataloging (1 hr.)
- 26b Library administration (3 hrs.)
- 28 *Practise work in various departments of the library (1 to 4 hrs.)

LIBRARY CLUB

Any member of the Library School faculty or of the staff of the University Library and any student in the Library School may become a member. Six meetings are held each year to discuss professional questions, and for social purposes.

¹The numbers refer to courses in the Description of Courses, page 261.

THE SCHOOL OF MUSIC

For *admission* to the School of Music, see the general statement of entrance requirements of the University, pages 69-91. For *fees*, see page 118. For the *faculty* of the School of Music and descriptions of the *courses* in Music, see under "Music" in the "Description of Courses," Part III.

GENERAL STATEMENT

The School of Music offers regular courses leading to the degree of Bachelor of Music, and a teacher's certificate in public school music.

Students who are not working for the degree in music may receive a statement from their instructors upon completing not less than one year of college work.

Classes in ear training meet twice each week. The fundamental principles of music notation are studied thoroly, and the ear is trained to recognize intervals, chords, etc., so that the student may eventually think music. Music students are required to attend these classes.

The sight-singing classes meet twice each week. This work is required of music students.

Choral, orchestral, and ensemble work is required of all students who are sufficiently advanced.

All students majoring in a practical subject are required to take Music 94 (Recital).

A series of lectures and recitals is given each year. Only artists of the best reputation appear. Music students are admitted free and are required to attend.

The instructors in the School of Music give recitals and lectures on musical subjects during the year.

The courses in the history of music and musical theory, as well as the work in the University Orchestra and the University Choral Society, may be taken by students in other departments without fee.

REQUIREMENTS FOR GRADUATION

Candidates for the degree of Bachelor of Music must offer credit for 130 semester hours, including the prescribed subjects named below, together with an acceptable thesis on a topic related to music.

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	S. H.				S. H.
Music 3, Harmony.....	2	Music 4, Harmony.....	2	Music 42b, 52b, or 62b, Piano, Voice, or Violin	6
Music 42a, 52a, or 62a, Piano, Voice, or Violin	6	Music 21b, Ear Training.....	3	Rhet. 2, Rhetoric and Themes.....	3
Music 21a, Ear Training.....	3	*Rhet. 1, Rhetoric and Themes.....	3	Foreign language, French, German, or Italian	4
*Rhet. 1, Rhetoric and Themes.....	3	Foreign language, French, German, or Italian	4	Phys. Tr. 7, Gymnasium (women).....	1
Foreign language, French, German, or Italian	4	Phys. Tr. 9, Hygiene (women).....	1	Phys. Tr. 1, Gymnasium (men).....	1
Phys. Tr. 7, Gymnasium (women).....	1	Phys. Tr. 1, Gymnasium (men).....	1	Mil. 2, Drill (men).....	1
Phys. Tr. 9, Hygiene (women).....	1	Phys. Tr. 1a, Hygiene (men).....	1	Mil. 1, Drill Regulations (men).....	1
Phys. Tr. 1, Gymnasium (men).....	1				
Phys. Tr. 1a, Hygiene (men).....	1				
Mil. 2, Drill (men).....	1				
Total, Men.....	17	Total, Men.....	18		
Total, Women.....	17	Total, women.....	16		

*Those students who show by examination a proficiency in composition sufficient to qualify them for the second semester's work in Rhetoric 1 may be excused from the first semester's work. See page 75.

SECOND YEAR

FIRST SEMESTER

	S. H.
Music 1, History of Music.....	2
Music 5, Advanced Harmony.....	3
Music 43a, 53a, or 63a, Piano, Voice, or Violin	6
Music 22a, Ear Training.....	1
Music 23a, Sight Singing.....	1
Foreign language, French, German, or Italian	4
Mil. 2, Drill (men).....	1
Total, Men.....	17
Total, Women.....	16

SECOND SEMESTER

	S. H.
Music 2, History of Music.....	2
Music 6, Advanced Harmony.....	3
Music 43b, 53b, or 63b, Piano, Voice, or Violin	6
Music 22b, Ear Training.....	1
Music 23b, Sight Singing.....	1
Foreign language, French, German, or Italian	4
Mil. 2, Drill (men).....	1
Total, Men.....	17
Total, Women.....	16

THIRD YEAR

Music 7, Counterpoint, Canon, and Fugue 3	
Music 44a, 54a, or 64a, Piano, Voice, or Violin	6
Music 24a, Sight Singing.....	1
Education 1, Principles.....	3
English 1, Survey of English Literature..	4
Total	17

Music 8, Counterpoint, Canon, and Fugue 3	
Music 44b, 54b, or 64b, Piano, Voice, or Violin	6
Music 24b, Sight Singing.....	1
English 1, Survey of English Literature..	4
Total	14

FOURTH YEAR

Music 9, General Theory, Free Composition	2
Music 11, Acoustics.....	1
Music 45a, 55a, or 65a, Piano, Voice, or Violin	6
Music 46a, 56a, or 66a, Minor Subject....	2
Music 94a, Recital.....	3
English 35, The English Drama.....	3
Total	17

Music 10, General Theory, Free Composition	2
Music 12, Acoustics.....	1
Music 45b, 55b, or 65b, Piano, Voice, or Violin	6
Music 46b, 56b, or 66b, Minor Subject....	2
Music 94b, Recital.....	3
Total	14

In Addition, for Women: 3 hours elective, to make up the prescribed total of 130 hours. These three extra credits may be taken at any time; the election made must be approved by the student's adviser.

Practical Courses include regular attendance in Music 91 (Orchestra), Music 93 (Choral Society), and Music 27 (Ensemble Class), unless a student is excused by the Director of the School of Music.

COURSE IN PUBLIC SCHOOL MUSIC

The aim of the Course in Public School Music is to prepare competent teachers and supervisors of music for the public schools. Students completing the course are granted teachers' certificates. An opportunity for practise teaching is offered. The course is one year in length, and comprises the following prescribed subjects:

COURSE IN PUBLIC SCHOOL MUSIC

Music 1-2—History of Music.....	4 hours
Music 3-4—Harmony.....	4 hours
Music 21a-21b—Ear Training.....	2 hours
Music 23a-23b—Sight Singing.....	2 hours
Music 25—Methods of Teaching.....	8 hours
Practical Music, major, Piano or Voice.....	12 hours
Practical Music, minor, Voice or Piano.....	4 hours
	<hr/>
	36 hours

Advanced students may satisfy a part of the foregoing requirements by examination; in no case, however, is a student permitted to take less than 30 hours of work.

MUSICAL ORGANIZATIONS

The University Choral and Orchestral Society is conducted by the Director of the School of Music, with the assistance of the instructor of violin, and gives a series of concerts throughout the year. The orchestra meets for two hours' rehearsal once a week; it is open to all students who qualify for membership. The chorus meets once a week for rehearsal of choral works. Singers not connected with the University are admitted by examination.

The Military Band is conducted by the instructor in band instruments. Besides giving several concerts during the year, it furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examinations. A Second Band is also conducted, in order that all students who play band instruments ordinarily well may have an opportunity to play in a band. Each full term of service in the Band counts for one term of the required work in Military Science. After obtaining credit for four semesters' work those who are continued in the Band for not less than one year are paid an amount equal to the incidental fees for the year.

THE SCHOOL OF EDUCATION

GENERAL STATEMENT

The School of Education was established in 1905 as an organization of the various activities of the University which are concerned with the professional preparation of teachers and supervisors for the public schools. The nucleus of the School is the department of education in the College of Liberal Arts and Sciences. The faculty of the School is made up of the members of this department and of other departments who offer courses intended for the preparation of high-school teachers. The Board of Trustees has approved plans for a building to be used as a laboratory for the School of Education and to include quarters for a training school of secondary grade, and has purchased a site upon which the first wing of this building will be erected.

THE DEPARTMENT OF EDUCATION

The Department of Education includes four full professors, an associate professor, and several assistants. It offers courses in educational history, theory, and practise—see under Education in the General Description of Courses, Part III. Two of the courses (Education 1 and 10) are required of all students who wish to secure the official recommendation of the University for teaching positions in secondary schools—see “Committee on Appointment of Teachers,” page 202. Credits earned in these courses are usually accepted by county superintendents in lieu of examinations in pedagogy for county teachers’ certificates; and these and other courses serve to prepare candidates for the examinations in professional subjects required for the State supervisory and high-school certificates—see “Certification of High School Teachers in Illinois,” page 203.

GRADUATE WORK IN EDUCATION

Graduate work in education is offered to qualified students in the following fields: general educational theory (Professor Bagley); educational administration and supervision and elementary education (Professor Coffman); secondary, vocational, and higher education (Professor Johnston); educational psychology, including mental tests and clinical psychology, health administration, and school hygiene (Professor Whipple).

The equipment of the department for graduate work comprises: (a) A library of some 20,000 volumes (besides pamphlets), including the Aron Library of 8,000 titles relating largely to European education in the sixteenth, seventeenth, and eighteenth centuries; a collection of documents representing educational development in the United States, including school reports and courses of study of state and city systems, and a text-book library representing the development of elementary and secondary school texts used in American schools

from the beginning of the nineteenth century; (b) an educational museum, containing exhibits of school furniture, apparatus, and illustrative material and representative work of pupils; (c) a laboratory of educational and clinical psychology equipped for mental and physical tests.

PUBLICATIONS OF THE SCHOOL OF EDUCATION

The School of Education publishes a series of bulletins comprising (a) reports of the annual High School Conference, the Conferences on Teachers' Institutes, and other meetings and conferences regarding public education held at the University, and (b) reports of investigations and studies by members of the instructional staff and students in the department.

The department of education is unofficially related through the editorial work of its members to the following journals: *The Journal of Educational Psychology* (Baltimore), edited by J. C. Bell, W. C. Bagley, C. E. Seashore, and G. M. Whipple; *Educational Administration* (Baltimore), edited by C. H. Johnson, L. D. Coffman, and David Snedden; *The Illinois Teacher* (Official Journal of the Illinois State Teachers' Association), edited by L. D. Coffman; *School and Home Education* (Bloomington, Illinois), edited by W. C. Bagley.

COMMITTEE ON APPOINTMENT OF TEACHERS

The Committee on Appointment of Teachers recommends qualified graduates of the University for positions as teachers or supervisors in public schools, colleges, and technical schools in response to requests from the school authorities. The Director of the School of Education is chairman of the Committee, and the Secretary of the School is its chief executive officer.

The recommendations of the Committee are made under the following regulations, which were adopted by the University Senate on June 3, 1912:

1. The University Committee on Appointments is authorized to issue its recommendation, signed by the committee as the agent of the University, in all cases in which it is satisfied with the student's scholarship and ability to teach. The Committee shall regard the scholarship requirements as met if, in addition to carrying the professional courses mentioned in the next paragraph, the student has passed with an average grade of 85 in the courses necessary to constitute a major in the principal subject which he wishes to teach, and in courses aggregating a minimum varying from six to twelve semester hours (according to subject, and at the discretion of the Committee) in each of the other subjects for which he wishes to be recommended. The Committee shall, however, in each case secure the written opinion of the departments concerned in regard to the scholarship of the applicant, and shall view the evidence of scholarship as shown by the records in the light of this opinion; and if there appear to the Committee to be reasons which from their nature cannot be shown by mere records for questioning the scholastic ability of the student, the Committee may in its discretion withhold the recommendation.

2. A candidate must have successfully completed the following courses in the department of education:

- a. An introductory course which shall aim (1) to acquaint the prospective teacher with the public-school system as it exists today in the United States, and (2) to present a brief outline of the principles of education. (A four-hour course.)

- b. A course in the technique of teaching, accompanied by observation of class-room work in secondary schools, and including a discussion of class-management (routine and discipline), the elements of school hygiene, and the types of school exercises. (A three-hour course.)

3. The Director of the School of Education may, in his discretion, excuse a candidate from the professional courses outlined above, (1) if the candidate is a normal-school graduate or has taken equivalent courses in a normal school or in another college or university; or (2) if the candidate has had at least one year of successful teaching experience. If, at the time of registration with the Committee on Appointments, the candidate has not completed one of the required courses, but is enrolled at that time in the course, a Committee recommendation may be given with the approval of the instructor in charge of the course.

The courses mentioned in Section 2 are (a) Education 1, Introduction to Education (4 hours), and (b) Education 10, Observation and Technique of Teaching (3 hours). Either course may be taken in either semester.

CERTIFICATION OF HIGH-SCHOOL TEACHERS IN ILLINOIS

A student who expects to teach in the Illinois high schools should bear in mind that all teachers must be duly certificated. County high-school certificates are granted upon examination by county superintendents, and State high-school certificates upon examination by the State Superintendent. For county high-school certificates issued without an examination the new certificating law makes the following provision:

"At the option of the county superintendent, a high school certificate may be issued without examination to graduates of a recognized normal school, college, or university, who present within three years after graduation, certified credits in English, pedagogy and six high school subjects (chosen from a list published by the Examining Board) and accompanied by faculty recommendations of ability to teach in the high school." (Section 6.)

The educational courses required for the official recommendation of the University, Education 1 and 10, are commonly accepted as meeting the requirement in pedagogy.

State high-school certificates are granted under the following conditions:

"A four-year high school certificate valid in any high school in the State, for which the requirements shall be: (1) Graduation from a recognized college or university, or the completion of an equivalent preparation, (2) three years' successful teaching, two of which shall have been in the State on a first grade, a high school, or a supervisory county certificate; (3) a successful examination in English, educational psychology, and the principles and methods of teaching, and (4) the preparation of a thesis on one or more secondary school problems, the subject or subjects of which shall be selected from a list prescribed by the Superintendent of Public Instruction.

"[NOTE—Candidates who have had three years of successful experience in teaching, two of which were in Illinois under a first grade certificate and have exchanged the same for a county high school certificate under the new law, meet the requirements of No. 2]" (Circular 72, State Department of Public Instruction.)

Education 1, 10, and 25 embody the materials usually covered by the State examinations in educational psychology and in methods of teaching.

CERTIFICATION OF SUPERINTENDENTS AND PRINCIPALS

The following are the requirements for certification in supervisory work:

"A four-year supervisory certificate valid for supervisory work and for teaching in any district in the State. The requirements for this certificate shall be: (1) Graduation from a recognized high school and from a recognized normal school, or an equivalent preparation; (2) three years' successful supervision, two of which shall have been in this State on a county supervisory certificate; (3) a successful examination in English, educational psychology, sociology, the history of education, and school organization, administration, and supervision, and (4) the preparation of a thesis on one or more problems of school administration, the subject or subjects of which shall be selected from a list prescribed by the Superintendent of Public Instruction.

"[NOTE—Candidates who have had three years of successful experience in teaching, two of which were in Illinois under a first grade certificate, and have exchanged the same for a county supervisory certificate under the new law, meet the requirements of No. 2.]"

LIFE CERTIFICATES

"At the time of its expiration upon evidence of successful teaching or supervision satisfactory to the Superintendent of Public Instruction, any four-year State certificate enumerated in this Act shall become valid and be endorsed for life. The validity of State certificates now in force and those issued in accordance with this Act, shall be conditioned upon the good behavior of the holder." (Circular 72, State Department of Public Instruction.)

Education 1, 2, 4, 16, 20, 25 embody the material usually covered by the examination (except in English) for the State supervisory certificate.

REQUIREMENTS OF THE NORTH CENTRAL ASSOCIATION

Students who anticipate teaching in high schools accredited to the North Central Association of Colleges and Secondary Schools should complete courses in education aggregating at least eleven semester hours. This requirement of the Association is effective for new teachers after 1915, but is not retroactive. Certain work offered outside the department of education, especially "teachers' courses," may be counted as part of the eleven-hour minimum.

THE SCHOOL OF RAILWAY ENGINEERING AND ADMINISTRATION

GENERAL STATEMENT

The School of Railway Engineering and Administration has been established to prepare men broadly for the technical and administrative departments of railroads. The work offered is arranged in five different courses, any one of which is designed to occupy four years' time. The courses are:

- Railway Civil Engineering
- Railway Mechanical Engineering
- Railway Electrical Engineering
- Railway Transportation
- Railway Traffic and Accounting

The first three of these courses are administered by the College of Engineering, and a description of them appears with that of other courses offered by this College. Students are admitted to them under the same conditions as to other courses of the College of Engineering, and they have available for their use all of the library, drafting-room, and laboratory facilities which constitute the equipment of this College. The last two courses are administered by the College of Liberal Arts and Sciences; they are described in detail in connection with the other courses of this College. Students are admitted to them under the same conditions as to other courses of the College of Liberal Arts and Sciences.

It is the purpose of each of these courses to add to the broad foundation of discipline and training which should be supplied by every college course such specialized training as will be most useful to those who look forward to careers in railway service.

MILITARY SCIENCE

The military instruction is under the charge of an officer of the United States Army. The course as a whole has special reference to the duties of officers of the line. A full supply of arms and ammunition is furnished by the War Department, including 1,500 U. S. magazine rifles (model 1898) and accouterments, two field pieces of artillery, and full equipment for a signal corps and a hospital corps.

Every male student under twenty-five years of age, able to perform military duty, and not excused for sufficient cause, is required to drill twice each week until he has gained credit for four semester hours. He is also required to study drill regulations for infantry, and to recite upon the text once a week until he gains credit for one semester hour.

The practical instruction begins as soon as possible after a student enters the University. The standings in study and drill are placed on record with other class credits; one semester of recitations and drill counts two hours, and the three remaining semesters of drill three hours. This work is required for graduation in all the undergraduate colleges of the University.

The Cadet Brigade consists of the First Regiment, three battalions of four companies each, commanded by a Cadet Colonel; the Second Regiment, two battalions of four companies each, commanded by a Cadet Lieutenant Colonel. The non-commissioned officers are selected from the sophomore class, the lieutenants from the junior class, and the field officers and captains from the senior class. There are 2,000 cadets and 90 commissioned officers in the brigade.

Artillery and signal detachments are organized mainly from those students of the second year or sophomore class who have made more than an average standing in the work of the previous year.

A special military scholarship, good for one year, is open to each student who attains the grade of a commissioned officer; its value is paid to the holder at the close of the year. Appointments in the regiment are made on the nomination of the commandant of cadets confirmed by the Council of Administration.

Towards the close of the year a committee appointed by the President of the University examines candidates for nomination to the Governor of the State to receive commissions as brevet captains in the State militia. Candidates must be members of the senior class in full standing at the time of this examination; must have completed the course of military studies; must have served two semesters as commissioned officers; and must be approved by the Council of Administration as having good reputation as scholars, officers, and gentlemen.

The uniform is of cadet gray, the coat trimmed with black mohair braid, the trousers with black cloth stripe, cut after the U. S. Army pattern. During warm weather a blue flannel shirt is worn instead of the coat. In order that all uniforms worn at the University may be, in quality, make, and finish, in strict accordance with the specifications adopted by the Board of Trustees, all students enrolled in the military department are required to obtain them from that firm

only that may, for the time being, be under agreement and bond with the Trustees to furnish said uniforms at a stated price and of standard quality.

The University military band is composed of students, and every full term of service therein is counted as one term of drill. Those who play in the band after having earned their five military credits necessary for graduation have their incidental fees remitted at the end of each year. Besides giving several concerts during the year, the band furnishes music for regimental formations and ceremonies and other occasions as required by the President of the University. Membership is decided by competitive examination.

PHYSICAL TRAINING

FOR MEN

The object of the work in this department is to preserve and improve the bodily health of the students by rational exercises and to teach proper inter-collegiate sports. Physical training is compulsory for all freshmen. Regular classes are formed in swimming and fencing and for drill on the various gymnasium appliances. Lectures are given on personal hygiene.

All competitive athletic games are under the direct supervision of the Director of Physical Training, and an examination is required to show that membership on any team will not cause injury, but will tend to improve the physical condition. No student whose class work is unsatisfactory is allowed to play on a University team.

For a description of the Men's Gymnasium, see page 55.

FOR WOMEN

The object of the work of this department is to preserve and improve the general health, carriage, and co-ordination of the young women of the University. Each student is given a physical examination; suitable exercise is prescribed and advice given.

The class work embraces corrective, hygienic, and recreative exercise, including free and light gymnastics, marching, simple steps, games, and Maypole. Tennis, hockey, basket-ball, volley-ball, German-ball, and quoits are played in season.

The gymnasium is open at certain hours and under suitable restrictions to all women of the University. The uniform consists of black serge bloomers, white cotton blouse, black tie, and gymnasium shoes.

The swimming pool is open daily, except Saturday, from 10 to 12 a. m., and from 2 to 5:30 p. m. The regulation swimming suit of one piece must be made of cotton jersey or other cotton material.

For a description of the Women's Gymnasium, see under Woman's Building, page 55.

THE SUMMER SESSION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT OF THE UNIVERSITY
WILLIAM CHANDLER BAGLEY, Ph.D., *Director of the School of Education, and
Director of the Summer Session*

STAFF OF INSTRUCTION—1914

LEWIS FLINT ANDERSON, Ph.D., *Assistant Professor of Education*
WILLIAM CHANDLER BAGLEY, Ph.D., *Professor of Education*
CLARENCE WILLIAM BALKE, Ph.D., *Professor of Inorganic Chemistry*
FREDERICK CHARLES BAUER, B.S., *Associate in Soil Fertility*
FRANKLIN DAVIS BARKER, Ph.D., *Professor of Zoology, University of Nebraska*
PHILIP STEPHAN BARTO, A.M., *Instructor in German*
HERBERT JEWETT BARTON, A.M., *Professor of Latin Language and Literature*
GEORGE DENTON BEAL, Ph.D., *Instructor in Chemistry*
ADELINE BRAINARD, *Assistant in Music*
VERNA BROOKS, A.B., *Instructor in Physical Training for Women*
WALTER BUCHEN, A.M., *Assistant in English*
HOWARD VERNON CANTER, Ph.D., *Assistant Professor of Classics*
FRANK TRACY CARLTON, Ph.D., *Professor of Economics, Albion College, Mich.*
CHARLES SEROPHIN CARRY, *Assistant in Romance Language*
SIDNEY CASNER, *Assistant in Physical Training*
LOTUS DELTA COFFMAN, Ph.D., *Professor of Education*
LANE COOPER, Ph.D., *Assistant Professor of English, Cornell University*
HERBERT LE SOURD CREEK, Ph.D., *Instructor in English*
SUMNER WEBSTER CUSHING, S.B., A.M., *State Normal School, Salem, Massachusetts*
CLARENCE GEORGE DERICK, Ph.D., *Assistant Professor of Chemistry*
DANIEL KILHAM DODGE, Ph.D., *Professor of English Language and Literature*
NEWTON EDWARD ENSIGN, A.B., B.S., *Instructor in Theoretical and Applied
Mechanics*
GEORGIA FLEMING, B.S., *Instructor in Textiles*
JUSTUS WATSON FOLSOM, D.Sc., *Assistant Professor of Entomology*
JOHN JOSEPH GARDNER, B.S., *Instructor in Pomology*
HARRY LOVERING GILL, *Instructor in Track Athletics*
HARRISON FREDERICK GONNERMAN, M.S., *Instructor in Theoretical and Applied
Mechanics*
GUSTAVE ADOLPH GROSS, *Instructor in Woodworking*
THACHER HOWLAND GUILD, A.M., *Associate in English*
STELLA MARY HAGUE, Ph.D., *Instructor in Botany*
ALFRED LAWRENCE HALL-QUEST, A.M., *Assistant in Education*
CHARLES LEROY HARLAN, A.B., *Assistant in Education*
GEORGE WILLIAM HEITKAMP, A.B., *Assistant in Physiography*
FELIX EMIL HELD, Ph.D., *Assistant in German*
MARY HILL, *Assistant in Art and Design*

- B. SMITH HOPKINS, Ph.D., *Instructor in Chemistry*
 GEORGE A. HUFF, *Director of Physical Training for Men*
 ALBERT WOODWARD JAMISON, M.S., *Associate in Agricultural Extension*
 CHARLES HUGHES JOHNSTON, Ph.D., *Professor of Secondary Education*
 RALPH R. JONES, *Basket Ball Coach*
 HARVEY HERBERT JORDAN, B.S., *Instructor in General Engineering Drawing*
 OLIVER KAMM, B.S., *Assistant in Chemistry*
 AUBREY JOHN KEMPNER, Ph.D., *Instructor in Mathematics*
 ARMIN HAJMAN KOLLER, Ph.D., *Instructor in German*
 OTTO EDUARD LESSING, Ph.D., *Professor of German*
 SIMON LITMAN, Dr. Jur. Pub. et Rer. Cam., *Assistant Professor of Economics*
 ERNEST BARNES LYTLE, Ph.D., *Associate in Mathematics*
 DUNCAN ARTHUR MACINNES, Ph.D., *Instructor in Chemistry*
 WILLIAM PITT MILLER, B.S., *Assistant in Agriculture*
 WILFORD STANTON MILLER, A.M., *Assistant in Education and Secretary of the School of Education*
 THOMAS FRANCIS MORAN, Ph.D., *Professor of History, Purdue University*
 JONAS BERNARD NATHANSON, A.M., *Assistant in Physics*
 THOMAS EDWARD OLIVER, Ph.D., *Professor of Romance Language*
 WALES HARRISON PACKARD, Ph.D., *Instructor in Zoology*
 JOSEPH C. PARK, *Director of Industrial Education, Oswego, New York*
 MAUD PARSONS, A.B., *Assistant in Household Science and Director of Lunch Room*
 HARRY GILBERT PAUL, Ph.D., *Assistant Professor of English Language and Literature*
 ALVAH PETERSON, B.S., *Assistant in Entomology*
 GUSTAVE HOWARD RADEBAUGH, *Instructor in Machine Work*
 LOUIS W. RAPEER, Ph.D., *New York Training School for Teachers*
 ROBERT KIMBALL RICHARDSON, Ph.D., *Professor of History in Beloit College*
 ELMER ROBERTS, B.S., *Assistant in Agriculture*
 WILLIAM SPENCER ROBERTSON, Ph.D., *Assistant Professor of History*
 SIDNEY ARCHIE ROWLAND, A.B., *Assistant in Mathematics*
 GEORGE RUTLEDGE, A.B., *Research Assistant in Mathematics*
 GEORGE WALLACE SEARS, M.S., *Assistant in Chemistry*
 FRED B. SEELY, B.S., *Instructor in Theoretical and Applied Mechanics*
 CONSTANCE BARLOW SMITH, *Assistant Professor of Music*
 ORRIN HAROLD SMITH, A.B., A.M., *Assistant in Physics*
 WILLIAM HERSCHEL SMITH, M.S., *Instructor in Animal Husbandry*
 RUSSEL STORY, A.M., *Instructor in Political Science*
 CHARLES MANFRED THOMPSON, Ph.D., *Instructor in Economic History*
 ARTHUR JERROLD TIEJE, Ph.D., *Instructor in English*
 WILLIAM TRELEASE, D.Sc., LL.D., *Professor of Botany and Head of Department*
 GUSTAF ERIC WAHLIN, Ph.D., *Associate in Mathematics*
 EARLE HORACE WARNER, A.B., *Assistant in Physics*
 FLOYD ROWE WATSON, Ph.D., *Assistant Professor of Physics*
 ULYSSES GRANT WEATHERLY, Ph.D., *Professor of Sociology, Indiana University*
 HENRY CHARLES PAUL WEBER, Ph.D., *Assistant Professor of Chemistry*
 ANNA WALLER WILLIAMS, A.M., *Instructor in Household Science*
 ELMER HOWARD WILLIAMS, Ph.D., *Associate in Physics*
 ROBERT CARL ZUPPKE, *Foot Ball Coach*

GENERAL STATEMENT

The Summer Session of the University of Illinois for 1914 opened on June 22 and closed on August 14, making a term of *eight weeks*. The Summer Session of 1915 will open on June 21 and close on August 13.

All the courses extend through the eight weeks. Students who wish to remain for only six weeks may obtain from the Director of the Session a certificate of such attendance, but university credit will not be given for six-weeks courses.

Students may register for courses aggregating eight credit hours or less.

PURPOSE

The primary purpose of the Summer Session is to meet the needs of teachers in the public schools who wish to spend a part of the summer in study or investigation. The greater number of courses offered are designed for high-school teachers, supervising officers, and teachers of special subjects (art, music, manual training, domestic science, agriculture, etc.), and for college instructors, school supervisors, and principals who are working for advanced degrees. At the same time, students who may not fall within these groups are welcomed at the Session, and several courses of a more general nature are provided to meet their needs.

ADMISSION

Admission in regular status to courses in the Summer Session for which university credit is granted is limited to students who could be regularly admitted to the college of the University (Liberal Arts and Sciences, or Engineering, or Agriculture) in which they would be registered in the winter session.

In order to meet in full the entrance requirements for any one of these colleges, a student must obtain credit, either by passing entrance examinations, or by presenting certificates of work completed in accredited secondary schools or other recognized schools, for 15 units of high-school work, or the equivalent, in subjects accepted for admission to the University, including in the case of each college certain subjects especially prescribed for admission to that college. (See pages 69 to 91.)

Admission to courses which give university credit, *as special students, not candidates for a degree*, may be granted to persons 21 years of age, or over, subject to the general regulations of the University relating to special students.

Teachers who cannot meet the above conditions may be admitted to those courses which do not carry university credit.

REGISTRATION

Students will present themselves for registration on Monday, June 21, 1915.

FEES

A tuition fee of twelve dollars (\$12) is required of all students in regular attendance at the Session. This entitles one to admission to regular courses and to all special lectures. An extra laboratory fee is charged in some courses for materials used. Any single course may be taken for a fee of six dollars (\$6) and the laboratory fee, if there be one. A single course is understood to mean not more than two and one-half credit hours.

SCHOLARSHIPS

By ruling of the Board of Trustees of the University, all high school teachers in Illinois, and all other teachers in the State who are qualified to matriculate in the University as regular students, are entitled to Summer Session scholarships, exempting them from payment of the tuition fee. To matriculate regularly in the University, one must either pass the entrance examinations, or present a certificate from an accredited high school or other evidence of having completed the requisite amount of preparatory work.

By a more recent resolution of the Board of Trustees, the scholarship privilege is extended to persons graduated from the Illinois State Normal Schools during the academic year preceding the session in which the scholarship is desired, and to persons (otherwise qualified) who have not been teachers, but who are under contract to teach in the State during the coming year.

Application blanks for scholarships may be obtained by addressing the Director.

GRADUATE WORK IN THE SUMMER SESSION

During the past four years the Summer Session has placed increasing emphasis upon graduate courses leading to the master's degree. The various departments which are closely related to high school teaching and to educational administration have been selected as the centers of this emphasis. An attempt is made to vary the graduate offerings from year to year so that advanced students each year may find acceptable work in their chosen fields.

The normal requirement for the master's degree is full work of graduate grade, satisfactorily completed, through one year of residence. This means a residence of thirty-six weeks at the University. Qualified graduate students may fulfill this residence requirement in four summer sessions of eight weeks each and an additional four weeks' study at the University under the direction of the person in charge of the major work. Thus a student, by working at the University for one week before or after each session under the direction of the professor in charge of his major subject, may earn the master's degree in four summers.

In certain cases it will be possible for the graduate student to complete the last fourth of his residence requirement under a leave of absence. This privilege may be granted in the event that the student is able to take advantage of opportunities for research and investigation that are not afforded in the University community. Superintendents, principals, and class-room teachers frequently find it possible to carry on investigations in connection with their school work. There are, for example, numerous problems of school administration and of teaching for which the public school itself forms the only available "laboratory." Where the investigation of such problems is prosecuted with the co-operation of a department of the University, it may be possible to count the work toward the master's degree.

SUMMER COURSES IN LIBRARY TRAINING

Beginning Monday, June 22, 1914, and continuing for six weeks, the Library School conducted a Summer Session *to which were admitted only those actually employed as librarians, or library assistants, or teacher-librarians, or under definite appointment to serve in such positions.* The curriculum was planned to

meet especially the needs of workers in public libraries and in high school libraries of Illinois and no tuition fee was charged students entering from this State; students entering from libraries in other states paid a tuition fee of \$12. The work was under the general direction of the faculty of the Library School, and the instruction was given by members of the faculty, supplemented by lectures by neighboring librarians. No university credit was given for the work as offered in 1914.

The work occupied the whole time of the student. The number of lectures in each subject was approximately as follows: Cataloging, 20; classification and book numbers, 13; book selection, 14; administration of small libraries, 10; reference work, 10; work with children, 10; loan systems, order, accession and shelf work, binding and repairing, 13.

The Library courses are not offered in connection with the Summer Session, but as an independent undertaking of the Library School.

PLAYGROUND WORK AND COACHING

In addition to the regular gymnasium work, special courses in coaching high school athletes were offered under the general direction of George A. Huff, Director of Physical Training for Men. This work was added because of the increasing demand for trained men to direct high school athletics. A playground specialist was secured to direct the Summer Session work in this field and to offer instruction to superintendents, principals, and teachers who were interested in this movement. The playground work was supplemented by course designed for those who wished instruction in directing playgrounds.

Courses were offered in baseball coaching (Mr. Huff), football coaching (Mr. Zuppke), basketball coaching (Mr. Jones), and track coaching (Mr. Gill). These courses were particularly adapted to high school teachers and principals who are engaged for part of their time in coaching athletic teams. The course were so arranged that a student might, if he desired, devote his entire program to his work.

DESCRIPTION OF COURSES

For a description of the courses offered in the Summer Session, see the General Description of Courses, beginning on page 261.

THE COLLEGE OF LAW

For the *faculty* of the College of Law, see page 358; for the *course* in law, page 68; for *fees* and *expenses*, pages 118 and 122.

GENERAL STATEMENT

It is the aim of the College to furnish its students with such a training as will best fit them for the practise of the law. A mere knowledge of what the law is will not suffice. The student must learn the reasons which have made it what it is. These can be mastered only by studying the law in the light of its historical development. No special course is offered on the history of the law; but it is sought to present each subject so that the principles peculiar to it may be historically understood. It is also the aim of the College that the courses shall be so presented as to familiarize the student with legal methods of reasoning and to equip him with legal habits of thought. It is believed that the case method of instruction, properly understood and applied, is best adapted to accomplish these objects.

ADMISSION

The requirements for admission to the College of Law for the year 1915-16 and thereafter are as follows:

For admission as a regular student and candidate for the degree of Bachelor of Laws, an applicant must be matriculated and have 60 hours of credit in a college of this University; or have completed two full years of work as given at another college or university of recognized standing; or have received by transfer 60 hours of university credit here.

The faculty of the College of Law may, in its discretion, prescribe from time to time subjects which shall be required as part of the preliminary college work, subject to approval by the University Senate.

A student who is 21 years of age and is entitled to admission as a regular student to another college of this University, will be admitted as a special student in the College of Law. If he attains in the courses of the first year an average grade of 80 or over, he will be admitted to regular standing, and he may receive the degree of Bachelor of Laws if in all the courses he presents for the degree his average grade is 80 or more.

NOTE: The above is not intended to abrogate the present rule in regard to the admission of special students.

SPECIAL STUDENTS

Students twenty-one years of age, or over, who are not able to satisfy the regular requirements for admission, but who have had a preliminary education which would entitle them to take the Illinois State Bar Examination, may, by permission of the faculty, be admitted without examination as special students, but no such student may be a candidate for a degree. In exceptional cases, other persons may, by permission of the faculty, be admitted as special students.

No one may continue as a special student for more than two years except by special permission of the faculty, application for which should be made through the Dean.

ADVANCED STANDING

After matriculating, an applicant may obtain advanced standing (1) by transfer of credits from another accredited law school upon presentation of a certificate of honorable dismissal and a certified record of work done; or (2) by examination taken at the time of entrance to the College of Law in first year subjects only.

SUGGESTED PREPARATORY COURSE

The following schedule of studies is recommended by the faculty of the College of Law for students taking two years in the College of Liberal Arts and Sciences to meet the requirement for admission to the College of Law:

FIRST SEMESTER		FIRST YEAR		SECOND SEMESTER	
	S. H.				S. H.
Military, 2a.....	1	Military 1 and 2b.....			
Phys. Training 1 and 1a.....	1	Physical Training 2.....			
Rhetoric 1.....	3	Rhetoric 2.....			
Foreign language.....	4	Foreign language.....			
History 2a.....	3	History 2b.....			
Science	5	Mathematics 2.....			
Total	17	Total			

SECOND YEAR

Military 2c.....	1	Military 2d.....	
Science or foreign language.....	5 or 4	English 20.....	
Political Science 1.....	3	Political Science 3.....	
Economics 1.....	5	Economics 3.....	
History 4a.....	3	Philosophy 1.....	
Total.....	17 or 16	History 4b.....	
		Total	

The courses in military and physical training, Rhetoric 1-2, and eight hours in foreign language are required of freshmen in the College of Liberal Arts and Sciences. Latin is strongly urged for all students intending to study law; but those who have not had the necessary preparation for college courses in Latin should substitute a modern language, preferably French or German.

COMBINED COURSE IN LIBERAL ARTS AND SCIENCES AND LAW

By the proper selection of his studies it is possible for a prospective law student to take both the degree in arts and the degree in law in six years. (See page 141.)

INSTRUCTION

Courses in substantive law are taught by analyzing and comparing cases which have been carefully selected and arranged in case books. Reference, however, are constantly made to leading text books, and they are recommended and in certain courses required for collateral reading.

Courses in the law of procedure are taught from the leading text book supplemented by the examination of statutes and adjudged cases, and students are brought into as close touch as possible with actual practice, both by the method of instruction in these courses and by means of the Moot Court.

The instruction gives a thorough training in the common law, which constitutes a proper foundation for the practise of law in any state.

The faculty of the College is impressed with the idea that a state university should teach the law of the state which supports the school, and to that end, without neglecting the general principles that lie at the foundation of the common law, especial attention is given in all courses to grounding the student thoroly in the law as determined by the courts of Illinois. Throughout the entire course the students are required to consult frequently Illinois decisions and statutes, which are made the basis of discussion in class by students and instructor. In the Moot Court and through the course in Illinois procedure, especial attention is paid to the rules of pleading and practise that obtain in the State of Illinois.

MOOT COURT

The sessions of the Moot Court are held every Monday afternoon of the first semester for the third year class; every Tuesday afternoon of the first semester for the second year class; and every Monday afternoon of the second semester for the second and third year classes together. The Court is presided over by the Dean, who has had an experience of twenty-five years as a judge of the Circuit and Appellate Courts of Illinois. Attendance is compulsory with second and third year classes. It is the purpose to have the workings of the Moot Court parallel proceedings in the various courts of the State. Students are trained in the preparation of legal documents and in the trial of cases, both civil and criminal.

The Moot Court Bulletin is published every other week of the college year, and in this are printed the statements of cases, the briefs of opposing counsel, and the opinions of the presiding judge.

SPECIAL LECTURES

Addresses by prominent members of the bench and bar on practical features of the law are given from time to time during the year.

THE LAW LIBRARY

The Law Library contains 18,500 volumes, including all the reports of the courts of last resort of all the states; the United States Supreme, Circuit, and District Court reports; the English reports; the Irish reports; the Scotch Appeal cases; the Current Canadian and Australian reports, together with complete reports of several of the Canadian provinces; the statutes of the various states; digests of the state reports; several sets of special reports, such as the American Reports, American State Reports, American Decisions, Lawyers' Reports annotated, and American Cases Annotated; complete National Reporter System; all the great Encyclopedias and Digests; and a carefully selected collection of text books and legal periodicals.

REQUIREMENTS FOR GRADUATION AND DEGREES

The degree of Bachelor of Laws will be granted to all regularly matriculated students who complete all the courses in the first year list; courses 8, 10, 12a-12b, 18, 20, 35a-35b (second year); courses 4a, 15, 17, 19, 21, 22, 36a-36b, (third year); and enough of the other courses offered to make 84 hours of credit.

Degree of Doctor of Law

The degree of Doctor of Law (J. D.) will be granted to students who comply with the following conditions:

1. Complete the work required for the degree of Bachelor of Laws.
2. Secure a bachelor's degree in arts or science at least two academic years prior to the completion of the course for the degree of Bachelor of Laws.
3. Obtain a minimum average grade of 85 in the College of Law.
4. Present a thesis approved by the faculty of the College of Law, in accordance with the requirements hereinafter set out.

Students who receive the A.B. degree after registering in the College of Law, and, by counting courses in law toward both the degree of A.B. and the degree of LL.B., take both degrees in six years, must during the first year in the College of Law take four hours in history or the social sciences.

Rules Concerning Theses

The following are the rules concerning theses presented for the degree of Doctor of Law: 1. The thesis must be on a subject approved by the Dean of the College of Law after consultation with him as to the proposed method of treatment. 2. The subject of the thesis must be filed with the Secretary on or before December 20. 3. The thesis must be typewritten on paper 8½x11 inches, with at least one inch margin at the top, bottom, and sides. 4. It should contain not less than 4,000 nor more than 10,000 words. 5. In citing cases, names of parties, volume, page, and year should be given. Citations are not to be counted in determining the number of words. The student is expected to exhaust the cases decided during the period covered by his thesis, and to state the period for which the cases have been examined. 6. The thesis must be delivered to the Secretary of the faculty not later than May 1.

The thesis may then be returned to the writer for revision, or if unsatisfactory, it may be rejected altogether. If returned for revision it may be rejected after being revised. If accepted it will be filed in the Law Library, and may be published by the College of Law or by the University.

CERTIFICATE FOR ADMISSION TO THE ILLINOIS STATE BAR EXAMINATION

Any student although not a candidate for a law degree, if he has taken the following courses; 1a-1b, 2a-2b, 3, 4, 5, 6, 7, 8, 10, 11, 12a-12b, 18, 20, 35a-35b, 4a, 15, 17, 19, 21, 22, 31, 36a-36b, is entitled to a certificate thereof from the University, which certificate satisfies the requirements as to legal studies prescribed by the Supreme Court of the State of Illinois for admission to the bar.

COURSE LEADING TO THE DEGREE OF LL.B.**First Year**

FIRST SEMESTER: Contracts (Law 1a); Torts (Law 2a); Criminal Law (Law 5); Personal Property (Law 6); Introduction to the Study of Law (Law 37).

SECOND SEMESTER: Contracts (Law 1b); Torts (Law 2b); Real Property (Law 3); Common Law Pleading (Law 4); Domestic Relations (Law 7).

Second Year

FIRST SEMESTER: Real Property (Law 10); Agency (Law 11); Equity (Law 12a); Moot Court (Law 35a); Public International Law (Law 30); Sales (Law 9); Carriers (Law 14); Damages (Law 13).

SECOND SEMESTER: Equity (Law 12b); Evidence (Law 8); Equity Pleading (Law 20); Moot Court (Law 35b); Quasi-Contracts (Law 32); Public Service Companies (Law 34).

Third Year

FIRST SEMESTER: Illinois Procedure (Law 4a); Bills and Notes (Law 15); Partnership (Law 19); Constitutional Law (a) (Law 22); Moot Court (Law 36a); Mortgages (Law 23); Municipal Corporations (Law 24).

SECOND SEMESTER: Trusts (Law 16); Private Corporations (Law 17); Suretyship (Law 21); Constitutional Law (b) (Law 33); Moot Court (Law 36b); Conflict of Laws (Law 31); Bankruptcy (Law 25).

PRIVILEGES OF STUDENTS

The students of the College of Law may take, without extra fee, courses of study in other departments of the University, provided they secure the approval of the Dean of the College of Law. Especial attention is called to the courses in public speaking and debate, and to the courses in history, economics, and political science in the College of Liberal Arts and Sciences and the Graduate School.

Law students are entitled to library privileges in the general library as well as in the law library, and possess in general all the rights and privileges enjoyed by other students of the University.

SCHOLARSHIP PRIZES

Eight scholarship prizes are open to matriculated students of the first and second years, to be awarded at the end of each year, four of \$50 each and four of \$25 each, available in discharge of tuition fees.

The American Law Book Company of New York offers an annual prize consisting of the Students' Edition of CYC, to be awarded to the member of the senior class making the best average during his senior year.

Callaghan & Company, Law Publishers, of Chicago, offer an annual prize consisting of the Cyclopedic Law Dictionary, to be awarded to the member of the second year class making the best average during that year.

THE COLLEGE OF MEDICINE

For the *faculty* of The College of Medicine, see page 32; for a description of the *building*, see page 56.

LOCATION

The College buildings are located in the city block lying between Harrison, Congress, Honore, and Lincoln streets, in Chicago.

CLINICAL FACILITIES

Dispensary

The Dispensary, which has been newly equipped during the past year, is divided into ten departments: medicine, pediatrics, orthopedics, laryngology, dermatology, ophthalmology, gynecology, neurology, and genito-urinary diseases. These departments occupy the first floor and part of the second floor of the college building. Connected with them are the Roentgen laboratory and the dispensary laboratory, which is devoted to experimental and research work. The average number of patients treated annually is twenty-three thousand.

Dispensary instruction is given in the third and fourth years; the subjects of medicine, surgery, orthopedics, laryngology, and genito-urinary diseases in the third year, and the subjects of pediatrics, dermatology, neurology, ophthalmology, and gynecology in the fourth year. The larger departments devote two hours and the smaller departments one hour daily to this work. Three weeks' service is given by each department in each semester, so that the student receives a total of thirty-six hours in the larger departments and eighteen hours in the smaller departments.

Amphitheater Clinics

More than 600 clinics besides the dispensary clinics are given each year. Practically all diseases seen in the temperate zone are demonstrated and all the operations of surgery are performed.

Fourth year students are required to examine and diagnose many cases and to assist in the operations.

Students are prohibited from doing work that interferes in *any* way with the fulfillment of the requirements of the curriculum. Unofficial clinical work may not be substituted for the official clinical requirements.

Hospital Clinics

The new West Side Hospital, containing 149 beds, five operating rooms, including a clinical amphitheater having a seating capacity of seventy-two, and a laboratory connected with the college by a corridor.

The University Hospital, corner Ogden avenue, Congress and Lincoln streets, opposite the College, contains 92 beds, two operating rooms, a laboratory, an X-ray department, and a clinical amphitheater of seventy-five seats.

These institutions are located near the College and certain clinical facilities, furnished by them, are open to its students.

Within half a block of the College is the Cook County Hospital, the chief free hospital in Chicago. During the past year it has cared for 30,000 patients. In this hospital is conducted much of the clinical instruction of the College. Medical appointments in this institution are made each year by the Civil Service Board. The internes, sixty-four in number, and externes are selected each spring by competitive examination. Only graduates of medical colleges of Cook County are eligible. The internes serve eighteen months and receive their board and laundry and have rooms in the hospital. They do surgical, medical, and obstetrical work.

In addition to Cook County Hospital there are more than sixty public and private hospitals in Chicago. Each hospital appoints from two to four internes annually.

The students of this College are required to attend the clinics of the Cook County Hospital during their third and fourth years. The hospital tickets cost \$5.00 each, and are for sale at the office of the Warden. They admit the holders to all clinics and autopsies and to all public operations and lectures.

The County Morgue is located in the hospital grounds, and daily post-mortems are held by the pathologists of the hospital. Attendance is required during two years.

Members of the Faculty are connected with and give clinical instruction, to which students are admitted under certain conditions, in the following hospitals:

Cook County Hospital.	St. Luke's Hospital
West Side Hospital	Michael Reese Hospital
University Hospital	St. Joseph's Hospital
Augustana Hospital	North Chicago Hospital
St. Mary's Hospital	

All students of the fourth year attend clinics in a number of the important hospitals in the city, in small groups every Wednesday forenoon during the year. Those members of the fourth year class who have maintained satisfactory records for scholarship and attendance, and who have taken the summer term, are selected to act as externes during the hours from 8 a. m. to 12 m. in a number of the best hospitals in the city during the entire year.

THE QUINE LIBRARY

The library of the College of Medicine, named in honor of Dr. William E. Quine, for many years the Dean of the College and now Professor of Medicine, *Emeritus*, occupies the east end of the second floor of the Medical Building. This library contains 14,000 bound volumes, besides pamphlets and reprints and files of 250 American, German, English, French, and Italian journals. It is open from 9 to 5 daily, except Sundays and legal holidays.

This collection of books and periodicals is in charge of a librarian who is constantly present to assist and instruct students in the use of a technical library.

ADMISSION

Applicants for admission to the College of Medicine for the collegiate year beginning September 1, 1914, and thereafter, must offer:

I. Four years' work in an accredited high school, or the equivalent, comprising fifteen (15) units* of secondary credit and including prescribed subjects as follows:

English	3 units
Algebra	1 unit
Plane geometry	1 unit
German, French, Latin, or Greek.....	2 units
American history and civics	1 unit
Electives	7 units
<hr/>	
Total	15 units

II. Two years' work in a recognized college or university, comprising not less than sixty (60) semester hours† and including prescribed subjects as follows:

Physics	8 hours
Chemistry	8 hours
Biology	8 hours
German or French.....	6 hours
Electives	30 hours
<hr/>	
Total	60 hours

Either the secondary or the collegiate requirements may be satisfied (a) by *certificate* or (b) by *examination*.

I. (a) Secondary credits will be accepted by *certificate* from the following sources:

(1) From high schools and academies in the State of Illinois which are accredited to the University of Illinois.

(2) From the state normal schools of Illinois and other normal schools having equal requirements for graduation.

(3) From schools accredited by the North Central Association of Colleges and Secondary Schools.

(4) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.

(5) From schools approved by the New England College Entrance Certificate Board.

(b) Secondary credits may be made by *examination*:

(1) In the examinations conducted by the Registrar of the University of Illinois at the University in Urbana in January, July, and September of each year. For programs of these examinations, see pages 76 to 79.

(2) In the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year. In 1915 these examinations will be held September 23 and 24. Programs may be had by applying to the Secretary of the College of Medicine, Congress and Honore Streets,

*A unit is the amount of work represented by the pursuit of one preparatory subject, with the equivalent of five forty-minute recitations a week, through 36 weeks; or, in other words, the work of 180 recitation periods of forty minutes each, or the equivalent in laboratory or other practise. In general, two hours in laboratory, shop, or drawing room are considered equivalent to one hour of recitation.

†A semester hour is a class period of one hour a week for one semester, or the equivalent in laboratory, shop, or drawing room.

Chicago. The subjects offered will be the same as those included in the list on pages 71 and 72. For a description of the ground covered in the several subjects see pages 85 to 91.

(3) In the examinations conducted in June of each year by the College Entrance Examination Board. See page 73.

(4) In the examinations conducted by the Regents of the University of the State of New York.

II. Collegiate credits will be accepted *by certificate* from recognized colleges which require for admission the completion of at least 14 units of high school work in an accredited high school, or the full equivalent thereof, and for graduation, in addition, four years of college work; or may be made *by examination* in the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in September of each year. *Special arrangements must be made in advance with the Registrar for examinations in collegiate subjects.*

Students are strongly urged to acquire such an elementary knowledge of Latin as may be obtained in four or five years' work in school or college.

Students lacking the prescribed college work in any one of the sciences (physics, chemistry, or biology) who have had a full year's work in that science in an accredited high school may be admitted to courses in these subjects to be offered at the College of Medicine during the summer of 1915, which will be of assistance to them in preparing for examinations to remove these deficiencies.

It will be noted that a properly prepared student of good ability can complete the minimum prescriptions in collegiate work within two years and still have considerable time for the study of language, history, economics, psychology, etc.—all subjects of which it is eminently desirable that the future physician should know something.

The above represent the minimum requirements for admission to the College of Medicine. It is strongly urged that students shall have completed at least three years, or, if possible, four years, in a standard college before taking up the study of medicine.

ADMISSION AS SPECIAL STUDENTS

The general rule of the University will apply to the College of Medicine: Persons over twenty-one years of age, *not candidates for a degree*, may, on special approval of the dean, be admitted to classes for which they are prepared.

ADVANCED STANDING

The University will accept scholarship and time credits for work done in medical colleges having standards equal to those of the College of Medicine of the University of Illinois, in so far as this work coincides with or is the full equivalent of the courses prescribed by the University.

Students presenting credentials from such medical colleges will be exempt from examination in so far as the credentials cover the work of the year or years for which the applicant seeks to be credited. Every such student must present a letter of honorable dismissal from, and be eligible for promotion in, the college in which he has pursued his medical studies and must comply with the requirements for such promotion in the University of Illinois.

Entrance Requirements for Upper Classes

Candidates for admission to advanced standing must in all cases satisfy the entrance requirements which were met by the classes which they wish to enter as follows:

For the *sophomore* class, the present entrance requirements of the College as outlined above.

For the *junior* class, (1) 15 units of high school work, including English, 3 units; algebra, 1 unit; plane geometry, 1 unit; German, French, Latin or Greek, 2 units; American history and civics, 1 unit; physics, 1 unit; and electives, 6 units; and (2) one year—i. e., thirty semester hours—in liberal arts and sciences in a recognized college or university.

For the *senior* class, 15 units of high school work, including English, 3 units; algebra, 1 unit; plane geometry, 1 unit; German, French, Latin or Greek, 2 units; American history and civics, 1 unit; physics, 1 unit; and electives, 6 units.

REGISTRATION

Students are required to register in the office of the Secretary immediately upon the opening of the term for the work of that term, and credit will be allowed only in the branches in which the students are registered. Students are registered in the order in which their fees are paid. Registration of students closes October 7.

COLLEGIATE YEAR

The collegiate year of 1914-15 consists of a session of thirty-seven weeks, beginning October 1, 1914, and ending June 16, 1915. Each year is divided into two semesters of eighteen and nineteen weeks respectively. Attendance upon the full session is required in order to secure credit for a year's work, and attendance upon four full sessions is required for graduation.

FEES AND EXPENSES

Fees—	First Year	Second Year	Third Year	Fourth Year
Matriculation	\$5.00	\$5.00	\$5.00	\$5.00
General ticket	120.00	120.00	140.00	155.00
Laboratory	20.00	20.00	5.00	.....
	<hr/>	<hr/>	<hr/>	<hr/>
	\$145.00	\$145.00	\$150.00	\$160.00

Note—Dissections, \$5.00 per part. County Hospital ticket, \$5.00. Maternity fee, Chicago Lying-In Hospital, \$15.00.

No fees are charged regular students for special courses or quizzes. Under no circumstances are instructors, dispensary physicians, or professors allowed to receive a fee for instruction or service.

Fees charged special students are based on the amount of work taken.

Alumni are admitted, without charge, to all regular courses except in laboratory work in which a charge is made for material actually used.

The Board of Trustees reserve the right to change the fees at any time.

Microscopes

Each student is required to have an individual microscope. Provision has been made whereby the student can purchase a microscope at reduced rates or make payment in annual installments. If a student be unable to purchase a microscope the College will rent him one for his exclusive use at the rate of \$2.50 or \$4.00 a semester, the rate depending upon the equipment of the instrument.

Living Expenses

The expense of living in Chicago is less than in most other large cities. From twenty-five to thirty-five dollars a month may be regarded as adequate for ordinary living expenses, exclusive of books, clothing, railroad fare, and miscellaneous needs.

The expense for books varies between \$15.00 and \$25.00 a year. The instructors, at the beginning of each course, direct their students in regard to the purchase of text-books.

Scholarships

Through the generosity of the late Prof. R. L. Rea, a fund has been provided for four scholarships each year for indigent worthy students. These scholarships are awarded to the four students whose credentials and qualifications for the study of medicine entitle them to participate in the benefits of the Rea fund.

The students whose names follow received benefit under this scholarship during the session of 1913-14:

Arthur Davis.

Dimiter George Fournadjieff

Rose Sophia Houda

Walter L. Johnson.

The scholarships given by the Northwestern branch of the Woman's Foreign Missionary Society of the Methodist Episcopal Church were awarded in 1913-14 to Miss Beulah A. Cushman and Miss Anna Elizabeth Isham.

The scholarships given by the Woman's Congregational Board of Missions of the Interior were awarded in 1913-14 to Miss Marion A. Weightman and Miss Josephine Kennedy.

COURSES OFFERED

Students entering the four-year course as offered in the College of Medicine in 1914-15 and thereafter, offer two years of work in liberal arts and sciences for admission. Upon the completion of the first two years in the College of Medicine, the degree of Bachelor of Science will be conferred; and upon the completion of the four years in the College of Medicine, the degree of Doctor of Medicine will be conferred. The two years of work in arts and sciences required for admission to the College of Medicine may be taken in the College of Liberal Arts and Sciences at Urbana.

REQUIREMENTS FOR GRADUATION

1. Four full courses of instruction of not less than thirty-two weeks each, no two being in the same year, are required of every candidate for graduation.

2. The last course of instruction shall have been taken in this institution.
3. Acceptable evidence of good moral character must have been filed.
4. The candidate shall be at least twenty-one years old.
5. He shall have satisfactory credits and pass his final examinations in accordance with the rules of the Faculty.
6. All indebtedness to the college shall have been paid.

GENERAL PLAN OF INSTRUCTION

The curriculum required for graduation extends over four years. During the first two years the work is largely confined to the sciences fundamental to practical medicine, and the time of the student is largely devoted to laboratory work. During the first year this consists of work in anatomy, histology, embryology, physiology and chemistry. During the second year the study of anatomy, physiology, and physiological chemistry is continued, and in addition the student takes up therapeutics, pathology, and autopsies.

During the third and fourth years the time is devoted to practical medicine and surgery, and to clinical instruction.

Attendance upon clinics is required and students are graded upon and given credit for their work in the clinical courses just as they are for the work in the didactic and laboratory courses. The students of the third and fourth years are divided into sections for dispensary work, and have instruction in rotation in the various departments of practical medicine and surgery.

Optional Work

In addition to the required work, students may, with the permission of the Committee on Optional Courses take one or more optional courses. No credit will be allowed for this work.

RULES FOR PROMOTION

The passing grade in each subject is 70 per cent. A grade from 60 per cent to 70 per cent constitutes a condition and entitles the student to one re-examination in the subject. A mark below 60 per cent or the failure to remove a condition by re-examination constitutes a failure, and the subject must be repeated in course. A student who has any failure standing against him may not be advanced to the next year without the permission of the committee on promotion. Students who fail in the re-examination in subjects given in the first semester of the fourth year totaling more than 48 hours will not be permitted to go on with the work of the second semester, but must repeat the subjects the following year. No student may be a candidate for graduation who has conditions in more than 96 hours.

General examinations will be held in all subjects at the end of each semester. The examinations for the removal of conditions for students of the first three years will be held during the week preceding the opening of the next collegiate year. Re-examinations in subjects presented in the first semester of the fourth year will be held not later than two weeks from the end of that semester.

Certificates showing the credits earned, including the attendance record, are issued at the end of the college year.

DESCRIPTION OF COURSES

ANATOMY, HISTOLOGY, EMBRYOLOGY

ALBERT CHAUNCEY EYCLESHYMER, B.S., M.D., Ph.D., *Professor and Head of the Department*

FREDERICK BOGUE NOYES, A.B., D.D.S., *Professor of Dental Histology*
Associate Professor

ROY LEE MOODIE, Ph.D., *Instructor*

ELMER S RIGGS, A.M., *Lecturer in Comparative Dental Anatomy*

THOMAS SMITH JONES, B.F.A., *Artist*

LOUIS N BOELIO, *Technician*

General Statement

The laboratories for gross anatomy occupy two floors in the Dental Building. They comprise two dissecting rooms and a number of smaller rooms for embalming, storing, and prosecting. The laboratory for histology and embryology and the offices and research laboratories, are on the third floor of the Medical Building. The equipment includes apparatus for embalming, sectioning, macerating, corroding, and digesting; microtomes, microscopes, paraffin ovens, drawing apparatus, chemicals, glassware and Grüber stains. A small museum contains special dissections, osteological preparations, and models; sets of histological, neurological, and embryological sides; charts, lantern slides, and other teaching accessories. The departmental library contains nearly all the standard texts and about 2,500 special monographs. All the English, German, and French anatomical journals are received. The Crerar library is readily accessible and makes it possible to consult practically the whole literature of anatomy, zoology, and biology.

The aims of the department are: to give the average student such training in the essentials of anatomy as is necessary to secure a foundation for his later clinical work; to aid the exceptional student and physician to obtain a special knowledge of certain restricted fields of anatomy as a foundation for specialization; to stimulate both students and physicians to contribute to medical science.

Required Courses—First Year

Embryology.—Ovogenesis and spermatogenesis, maturation, ovulation and its relation to menstruation, fertilization, segmentation, gastrulation, formation and significance of germinal layers; the formation of the foetal envelopes and the placenta; the beginnings of organs and systems of organs; congenital malformations and their causes. Lectures and recitations: 2; laboratory: 2 two-hour periods. *II (second half.)** Professor EYCLESHYMER and assistants

Cytology, Histology, and Microscopic Anatomy.—The simplest animal cells; modified cells, such as are found in blood and lymph, epithelial, connective, muscular, and nervous tissues and their relationships in the various organs of the body. Lectures and recitations: 3; laboratory: 3 three-hour periods. *I.*

Professor EYCLESHYMER and assistants

*The first and second semesters are indicated by the Roman numerals I and II, respectively. A portion of a semester is indicated by the words in parenthesis following the semester numeral. Unless otherwise specifically stated, the Arabic numerals indicate the number of one-hour periods a week in each subject.

Neurology.—The gross and microscopic anatomy of the brain, spinal cord, and organs of special sense. Lectures and recitations: 2; laboratory: 2 two-hour periods. *II (first half).* Professor EYCLESYMER and assistants

Systematic Anatomy.—Dissection of the human body. For convenience, the body is subdivided into: (1) upper extremity and head and neck; (2) lower extremity and thorax and abdomen. (In order that there may be a correlated study of osteology each student is lent a set of bones for study at home.) Lectures and recitations: 3; laboratory: 2 three-hour periods. *I, II.*

Drs. MOODIE, HEACOCK and assistants

Required Courses—Second Year

Topographical Anatomy.—The topography and relations of the various regions, systems and organs of the body. Lectures and recitations: 2; laboratory: 2 three-hour periods. *I.* Dr. MOODIE and assistants

APPLIED AND SURGICAL ANATOMY

(See Department of Surgery)

Optional and Graduate Courses

Microscopical Technics.—Methods of preparing objects for microscopical study; injecting blood vessels and lymphatics; maceration, digestion, and corrosion; decalcification, fixation of tissues, embedding, sectioning, staining, and mounting. Hours to be arranged. Mr. BOELIO

Medical Illustrating.—Drawing, including perspective; values and their adaptation in the representation of medical subjects; normal and pathological specimens, both gross and microscopic; media adapted for representing certain conditions and structures, and suited for special methods of reproduction, such as line work, half tone, and lithography. (Open to all who are interested in the making of medical illustrations for publications.) Hours to be arranged.

Mr. JONES

Embryology and Histogenesis.—The structural changes in the principal tissues and their cellular elements during growth; changes in the structure of cells during senescence. Hours to be arranged. Professor EYCLESYMER

Dissection Review.—The principal systems of the body. Demonstration, occasional lectures, and quizzes. (Open only to those who have completed at least the first half of the third year.) Dr. MOODIE

Courses Preparatory to Specialization

(Special Fee.)

- A. The Eye.
- B. The Ear.
- C. Mouth, Nose, and Throat.
- D. The Thorax and Abdomen.
- E. The Genito-urinary System.
- F. Pelvic Anatomy.
- G. The Extremities, especially the joints and their mechanism.
- H. The Brain and Spinal Cord.

Research.—Physicians who desire to do research and students who have had three years of university training are invited to begin research work in this department. A reading knowledge of French and German is essential.

Seminar.—Introductory and advanced work. Critical reviews of recent anatomical literature; preparation of bibliographies; preparation of scientific papers for publication. Presentation and discussion of the results of investigations, the most promising lines of research, and the trend of anatomical thought.

DERMATOLOGY

WILLIAM ALLEN PUSEY, A.M., M.D., *Professor and Head of the Department*
 FREDERICK GILLETTE HARRIS, M.D., *Assistant Professor of Dermatology and Venereal Diseases*
 PHILIP FRANK SHAFFNER, M.D., *Instructor*

Required Courses—Fourth Year

Dermatology.—Didactic, illustrated. 2; *I or II.* Professor PUSEY

Clinical Dermatology.—Given in Cook County Hospital. 1; *I or II.*
 Assistant Professor HARRIS

Clinical Dermatology.—Given in the dispensary. Clinics of one hour daily throughout the year. 3; *I or II (six weeks).*
 Assistant Professor HARRIS, Dr. SHAFFNER

Optional Courses

Syphilis.—Advanced clinical course, limited to six students.
 Assistant Professor HARRIS

Pathology and Bacteriology of the Skin.—Limited to six students.
 Dr. SHAFFNER

EXPERIMENTAL MEDICINE

DAVID JOHN DAVIS, B.S., M.D., Ph.D., *Professor and Director of the Laboratories*
 JOSIAH J MOORE, B.S., M.D., *Associate, Experimental Medicine*
 STELLA MAY GARDNER, M.D., *Assistant Professor, Microscopical and Clinical Diagnosis*
 MARY LINCOLN, M.D., *Assistant Professor, Microscopical and Clinical Diagnosis*

General Statement

The function of this department is to carry on research work in medical problems, especially in clinical medicine, and to conduct the courses in clinical diagnosis and the laboratory work of the dispensary.

Required Course—Second Year

Laboratory Diagnosis.—The microscopic, bacteriologic, and chemical examination of urine, blood, sputum, feces, stomach contents, exudates. 8; *one-half of I or II.*

Professor DAVIS, Assistant Professors GARDNER and LINCOLN, Dr. MOORE

Required Course—Third Year

Laboratory Diagnosis.—8; *one-half of I or II.*

Assistant Professors GARDNER and LINCOLN

Optional Courses

Advanced Special Laboratory Methods.—Limited to a few specially qualified students. Hours to be arranged. Dr. MOORE

Research.—Limited to qualified students. Professor DAVIS

HYGIENE AND MEDICAL JURISPRUDENCE

ADOLPH GEHRMANN, M.D., *Professor and Head of the Department of Hygiene*

ELMER DEWITT BROTHERS, M.S., LL.B., *Lecturer, Medical Jurisprudence*

MATTHEW MILLS, LL.B., *Alternate Lecturer, Medical Jurisprudence*

Required Course—Third Year

Public Hygiene.—General etiology, immunity, contagious diseases, epidemiology, and preventive medicine; the organization of health departments and the work of the different divisions of the same; vital statistics, factory and school inspection, sanitation, municipal sanitation, and public welfare. Visits to public institutions and plants where the actual operation of the various phases of public health activities may be studied. Lectures. 2; II; laboratory and conference: 8 three-hour periods. Professor GEHRMANN

Required Course—Third Year

Medical Jurisprudence.—Lectures: 1; I or II.

Mr. BROTHERS

MEDICINE

CHARLES SPENCER WILLIAMSON, B.S., M.D., *Professor, and Head of the Department*

Division of Internal Medicine

CHARLES SPENCER WILLIAMSON, B.S., M.D., *Professor of Medicine*

MAURICE LOUIS GOODKIND, M.D., *Professor, Clinical Medicine*

FREDERICK TICE, M.D., *Professor, Diseases of the Chest and Clinical Medicine*

JOSEPH MCINTYRE PATTON, M.D., *Professor, Clinical Medicine*

JOHN WEATHERSON, C.E., M.D., *Assistant Professor, Medicine*

EDWARD LOUIS HEINTZ, Ph.G., M.D., *Assistant Professor, Medicine and Clinical Medicine*

MAURICE LEWISON, M.D., *Assistant Professor, Physical Diagnosis*

ROBERT WILLIAM MORRIS, A.B., M.D., *Instructor, Medicine*

WALDEMAR EBERHARDT, B.S., M.D., *Instructor, Medicine*

EDWARD F FOX, M.D., *Instructor, Medicine*

GEORGE J LORCH, Ph.G., M.D., *Instructor, Medicine*

HARRY JEROME SMEJKAL, M.D., *Instructor, Medicine*

LYNDON HARRIS, M.D., *Instructor, Medicine*

F RAYMOND CROOKS, M.D., *Instructor, Medicine*

JOHN EDDY HASKELL, A.B., M.D., *Instructor, Medicine*

ERNEST SISSON MOORE, Ph.B., M.D., *Instructor, Clinical Medicine*

ROBERT MOSSER, M.D., *Instructor, Clinical Medicine*

SOLOMON STROUSE, A.B., M.D., *Instructor, Clinical Medicine*

FRANK WRIGHT, M.D., *Instructor, Clinical Medicine*
 WALTER BRADFORD METCALF, M.D., *Instructor, Clinical Medicine*
 FRANKLIN S. WILSON, M.D., *Instructor, Clinical Medicine*
 PHILIP M DALE, M.D., *Instructor, Clinical Medicine*
 FRANK CHAUVET, M.D., *Instructor, Physical Diagnosis*
 LOUIS RUDOLPH, M.D., *Instructor, Physical Diagnosis*
 FRANK J. JIRKA, M.D., *Assistant, Physical Diagnosis*

General Statement

The work of this department is given in the second, third, and fourth years. In the second year the work includes the study of physical diagnosis on the normal subject, and pathologic cases preparatory to the clinical work of the last two years. At the same time, the student takes a course in laboratory diagnosis. As a foundation for the practical clinical work in the dispensary given in the third and fourth years.

In the third year instruction is carried on by conferences and recitations and by clinics. The student obtains instruction in internal medicine, and sees appropriate clinical cases. The student comes into intimate contact with patients and examines them in the dispensary under supervision.

In the fourth year part of the instruction is given by means of lectures and group quizzes, continuing the work of the third year. A large part of the work, however, is clinical, and is given not only in the College, but in the Cook County, University, and Michael Reese hospitals. In addition practical work is given in the dispensary in the various medical specialties. The last six weeks of the second semester are given over to a review of internal medicine. Text-books: Osler's *Modern Medicine*; Krause-Brugsch; Mohr and Stachelin.

Required Course—Second Year

Physical Diagnosis.—(a) Lectures. 1; II.

(b) Practical drill on the normal subjects. 1 two-hour period; II.

Assistant Professor LEWISON, Drs. CHAUVET and RUDOLPH

Required Courses—Third Year

Practise of Medicine.—Infectious diseases, except tuberculosis; the intoxications; diseases of metabolism and of the ductless glands. Conferences and recitations. 4; I, II.

Assistant Professor HEINTZ, Drs. LORCH, SMEJKAL, CROOKS, HARRIS, and HASKELL.

Medical Clinic.—Selected topics—in the amphitheatre of the Cook County Hospital. 1 two-hour period; I or II. Professor WILLIAMSON

Medical Clinic.—Material from the University Hospital dispensary. 1 two-hour period; I or II. Assistant Professor HEINTZ

Physical Diagnosis.—On account of the change in curriculum, a course in physical diagnosis similar to that of the second year is given in the third year. I.

Physical Diagnosis Clinic.—Given to small groups, using the patients in the tuberculosis wards of the Cook County Hospital. 1; I.

Assistant Professor LEWISON, Dr. CHAUVET

Medical Dispensary.—Practical work on out-patients. The rooms in which the course is conducted have been designed for this purpose and have

been newly equipped. Practically every disease of an ambulatory nature found in the temperate zone may be seen here. 3 two-hour periods; *I, II (three weeks)*.
Drs. MOSSER, MOORE, METCALF, WILSON, and DALE

Required Courses—Fourth Year

Practise of Medicine.—First semester: Diseases of the alimentary tract, liver, pancreas, peritoneum, heart, and lungs. Second semester: The kidneys and the blood; review of selected subjects. Lectures illustrated by pathological specimens, charts, and lantern slides; conferences. 6; *I—3; II*.

Lectures, Professors WILLIAMSON and TICE; Conferences, Assistant Professor WEATHERSON, Drs. MORRIS, EBERHART, and FOX

Medical Dispensary Clinic.—Gastro-intestinal, cardio-vascular, and renal diseases; methods of diagnostic analysis; collateral reading. 1 two-hour period; *I or II*.
Professor WILLIAMSON

Medical Clinic.—Given in the amphitheatre of the Cook County Hospital. 1 two-hour period; *I or II*.
Professor PATTON

Medical Clinic.—Given in the amphitheatre of the Cook County Hospital. 1 two-hour period; *I or II*.
Professor TICE

Group Clinic.—Given at the Michael Reese Hospital. Four one-hour periods to each group.
Professor GOODKIND

Medical Seminar.—Work in co-operation with the departments of surgery and obstetrics. The student receives 48 hours' credit, 16 in each department, although the work done is in one department only. During the first semester, the groups meet only informally, and abstracts are prepared and submitted for criticism. During the second semester, each group is assigned one hour in which to present its work before the entire class.

Professor WILLIAMSON and assistants

Optional Course

Seminar in the Classics of Medicine.—Given if a minimum number of four students apply; more than eight can not be admitted. Hours to be arranged.

Professor WILLIAMSON

Division of Pediatrics

JULIUS HAYS HESS, M.D., *Associate Professor, Pediatrics and Clinical Pediatrics*

EMANUEL OLIVER BENSON, A.B., M.D., *Assistant Professor, Pediatrics and Clinical Pediatrics*

WILBUB MAYNARD FRENCH, M.D., *Instructor*

EDWARD KENT ARMSTRONG, M.D., *Instructor*

HENRY EUGENE IRISH, M.D., *Instructor*

MAURICE L BLATT, M.D., *Instructor*

JAMES J McCARTY, JR., A.B., M.D., *Instructor*

JACOB CARL KRAFFT, M.D., *Instructor*

JOSEPH SAMUEL COHN, M.D., *Instructor*

General Statement

The work in pediatrics is given in the third and fourth years. So far as possible, individual instruction is given, the class being divided into small groups for clinical work.

Required Courses—Third Year

Pediatrics.—Nutrition and nutritional disturbances in infancy. Lectures. 1; *II*. Associate Professor HESS

Pediatrics.—Recitations. 1; *I*.

Drs. IRISH, ARMSTRONG, McCARTY, and COHN

Pediatric Clinic.—Physical diagnosis and demonstration of cases. 1; *I or II*. Assistant Professor BENSON and Dr. FRENCH

Required Courses—Fourth Year

Section Conference.—Michael Reese Hospital. 1 hour a week for four weeks. Associate Professor HESS

Section Conference.—University Hospital. 1 hour a week for four weeks. Dr. IRISH

Section Conference.—Contagious diseases. Cook County Hospital. 1 hour a week for four weeks. Dr. ARMSTRONG

Dispensary.—Three two-hour periods for six weeks.

Drs. FRENCH, BLATT, McCARTY, COHN, and KRAFT

Pediatric Clinic.—Cook County Hospital. 1 two-hour period; *I or II*.

Associate Professor HESS

Division of Neurology

LEE HARRISON METTLER, A.M., M.D., *Professor and Head of the Division of Neurology and Clinical Neurology*

ISADOR BERNARD DIAMOND, M.D., *Instructor*

CARL J S RYDIN, M.D., *Instructor*

EDWARD FRANKLIN LEONARD, M.D., *Instructor*

Required Courses—Fourth Year

Neurology.—Clinico-didactic lectures. Recitations on selected topics. Lectures, 1; *I, II*. Recitations, 1; *I, II*.

Lectures, Professor METTLER; recitations, Drs. DIAMOND, LEONARD, and RYDIN

Clinical Neurology.—Dispensary instruction. 3 two-hour periods, three weeks; *I, II*. Drs. DIAMOND, RYDIN, and LEONARD

Optional Courses

Special lectures in neuropathology, electrotherapeutics, or other related subjects. Books recommended: for recitations, Potts' *Diseases of the Nervous System*, for collateral reading: Oppenheim or Strümpell. 4 one-hour periods.

Professor METTLER

Division of Psychiatry

OSCAR AUGUSTUS KING, M.D., *Professor and Head of the Division of Psychiatry*

HAIM I DAVIS, M.D., *Assistant Professor, Clinical Psychiatry*

ULYSSES GRANT DARLING, M.D., *Assistant Professor, Psychiatry*

MEYER SOLOMON, M.D., *Instructor, Psychiatry*

Required Courses—Fourth Year**Psychiatry.**—Lectures and quizzes. 1; *II*.

Professor KING

Clinical Psychiatry.—Given in the detention wards of the Cook County Hospital. 1, eight weeks; *I, II*.

Assistant Professor DAVIS

*Division of Roentgenology*ADOLPH HARTUNG, M.D., *Instructor*MAXIMILLIAN HUBENY, M.D., *Assistant***Required Course—Fourth Year****Roentgenology.**—Conferences and demonstrations.

Drs. HARTUNG and HUBENY

*Division of History of Medicine*BERNARD JOHN CIGRAND, M.S., D.D.S., *Lecturer***Optional Course —Fourth Year****History of Medicine.**—Lectures. 1; *I or II*.**OBSTETRICS AND GYNECOLOGY**CHARLES SUMNER BACON, Ph.B., M.D., *Professor of Obstetrics, and Head of the Department**Division of Obstetrics*CHARLES SUMNER BACON, Ph.B., M.D., *Professor, Obstetrics and Clinical Obstetrics*RACHELLE S YARROS, M.D., *Associate Professor, Obstetrics and Clinical Obstetrics*CECIL VON BACHELLE, M.S., M.D., *Assistant Professor, Obstetrics*OTTO HERMAN ROHRLACK, Ph.G., M.D., *Assistant Professor, Obstetrics and Clinical Obstetrics*RICHARD CHARLES STEFFAN, M. D., *Instructor*JOHN WILLIAM BIRK, M.D., *Instructor*ANNIE ESTHER BARRON, M.D., *Instructor*CHARLES NEWBERGER, M.D., *Instructor*EDWARD MARTIN HEACOCK, M.D., *Instructor*FREDERICK HOWARD FALLS, A.B., M.D., *Instructor*WALTER CHARLES HAMMOND, M.D., *Instructor***General Statement**

The equipment of this department consists of manikins, demonstration pelves, malformed pelves, and other pathological specimens, charts, obstetrical instruments, and prepared fetuses. The histology and pathology is given in connection with the research laboratory.

The clinical work is given in the University Hospital and the Chicago Lying-In Dispensary. Bedside and dispensary clinics are given in the University Hospital. Each student is also required to assist in the delivery of six parturients. Reports of cases kept by students form the basis of conference discussions. An amphitheater clinic is also given to the senior class.

Fourth year students are required to take two weeks in residence in the Chicago Lying-In Hospital and Dispensary.

Required Courses—Third Year

Anatomy and Histology of the Obstetrical Passages and Passenger.—4 periods of two hours each. Dr. FALLS

Physiology of Pregnancy, Labor, the Puerperium, and the New Born Infant.—Lectures and recitations. 2; I, II.

Associate Professor YARROS, Drs. BIRK, NEWBERGER, HEACOCK, HAMMOND, and FALLS

Bedside and Dispensary Clinic.—University Hospital. 6 one-hour periods a week for two weeks.

Professor BACON, Assistant Professor ROHRLACK, and Drs. BARRON and FALLS

Parturition Clinic.—University Hospital. Three cases.

Required Courses—Fourth Year

Pathological Anatomy and Histology.—Laboratory. 2 to 4 two-hour periods in combination with the course on the pathology of the genital tract. (See division of gynecology.) Dr. FALLS

Pathology of Pregnancy, Labor, and the Puerperium.—Lectures and recitations. 48 hours in one-hour and two-hour periods.

Professor BACON, Assistant Professor ROHRLACK, and Drs. BIRK, NEWBERGER, HEACOCK, HAMMOND, and FALLS

Manikin Work.—8 two-hour periods.

Assistant Professor BACHELLE and Dr. STEFFEN

Bedside and Dispensary Clinic.—Given at the University Hospital. 6 one-hour periods a week for two weeks..

Professor BACON, Assistant Professor ROHRLACK, and Drs. BARRON and FALLS

Amphitheatre Clinic.—Given at the University Hospital. 1; I or II.

Professor BACON

Parturition Clinic.—Given at the University Hospital. Three cases.

Chicago Lying-In Hospital and Dispensary.—Residence, two weeks; at least six cases. (Fee, \$15.)

Obstetrical Seminar.—Work in co-operation with the departments of medicine and surgery. For this work the student receives 48 hours credit, 16 in each department, although the work is in one department only. During the first semester, the groups meet only informally, and abstracts will be prepared and submitted for criticism. During the second semester each group is assigned one hour in which to present its work before the class.

Professor BACON and assistants

Optional Courses

Obstetrical Pathology.—Third or fourth year.

Division of Gynecology

CHANNING WHITNEY BARRETT, M.D., *Professor, Gynecology and Clinical Gynecology*

MARY GILRUTH McEWENS, B.S., M.D., *Assistant Professor, Clinical Gynecology*

JOHN MICHAEL LANG, M.D., *Assistant Professor, Clinical Gynecology*
 IRVING HERBERT EDDY, M.D., *Instructor*
 EGAN WALTER FISCHMANN, M.D., *Instructor*
 CLARA PAULINE SEIPPEL, M.D., *Instructor*
 WESLEY JOHN WOOLSTON, M.D., *Instructor*
 ALBERT JOHN SCHOENBERG, M.D., *Instructor*
 MARY BLANCHE WHITE, M.D., *Instructor*
 PAULINE ROSE KAPSA, M.D., *Instructor*
 FRANK LEE STONE, M.D., *Assistant*
 MATHILDA OSBORNE LICHNER, B.S., M.D., *Assistant*

Required Courses—Fourth Year

Gynecology.—Recitations, lantern slide demonstrations, exhibition of fresh and preserved pathologic tissue, and illustrations by means of charts and models. An occasional hour is devoted to operative work. 2; *I*.

Professor BARRETT, Drs. McEWEN, LANG, EDDY, FISCHMANN, WOOLSTON, SCHOENBERG and STONE.

Diagnostic and Operative Clinic.—Cook County Hospital. Typical and atypical cases and the diagnosis, prognosis and treatment of the same. Cases preliminary to operation; post-operative progress; pathologic tissues. 1 two-hour period; *I* or *II*.

Professor BARRETT

Diagnostic and Operative Clinic.—The College Amphitheatre or West Side Hospital. Material from the College and Marcy Center dispensaries is available for bedside study of the post-operative course. 1 two-hour period, 8 weeks; *I*, *II*.

Professor BARRETT and Assistant Professors McEWEN and LANG

Dispensary Clinics.—College and Marcy Center Dispensaries. Examinations, study of cases, and written reports. 3, six weeks; *I*, *II*.

Assistant Professor LANG, Drs. FISCHMANN, WOOLSTON, KAPSA, WHITE, STONE, and LICHNER

Gross and Microscopic Study of Pathology of the Genital Tract.—Gross and microscopical specimens; conferences in connection with the Research Laboratory. 2 to 4 two-hour periods, in combination with the course on pathological anatomy and histology. (See division of obstetrics.)

Drs. FISCHMANN and STONE

Optional Courses

Gynecologic Pathology.—Special courses for students of demonstrated proficiency. Special investigation.

Professor BARRETT and assistants

OPHTHALMOLOGY

CASEY ALBERT WOOD, A.M., M.D., *Professor of Ophthalmology and Head of Department*

WILLIAM ELLIOTT GAMBLE, B.S., M.D., *Associate Professor of Clinical Ophthalmology*

JONATHAN BROWN LORING, M.D., *Assistant Professor, Clinical Ophthalmology*

EPHRAIM KIRKPATRICK FINDLAY, M.D., *Assistant Clinical Professor, Ophthalmology*

WILLIAM BUTLER WEST, M.D., *Instructor*

CHARLES CLAYTON CLEMENT, M.D., *Instructor*

FREDERICK DOUGLAS VREELAND, M.D., *Instructor*

LAWRENCE WELLS WHITMER, M.D., *Assistant*

GEORGIANA DVORAK-THEOBALD, M.D., *Assistant, Clinical Ophthalmology*

EDWARD F SLAVIK, M.D., *Assistant, Clinical Ophthalmology*

Required Courses—Fourth Year

Didactic Ophthalmology.—Lectures, dispensary teaching, and clinical lectures in the hospital. Illustrated lectures and meetings of the Journal Club. 1, twelve weeks; *I*. Professor Wood

Clinical Ophthalmology.—The common diseases of the eye, and such minor operations as the general practitioner may be expected to perform. 1; *I or II*. Professor Wood, Associate Professor GAMBLE and assistants

Dispensary Instruction.—Diagnosis and treatment of the commoner diseases of the eye. 3 two-hour periods, six weeks.

Professor Wood, Assistant Professors LORING and FINDLAY and instructors

Optional Courses

Properly qualified students can arrange for special or advanced work in ophthalmology by applying to Professor Wood. Books required: Wood and Loring, *Commoner Diseases of the Eye*; deSchweinitz, *Diseases of the Eye*.

PATHOLOGY AND BACTERIOLOGY

DAVID JOHN DAVIS, B.S., M.D., Ph.D., *Acting Professor of Pathology and Acting Head of Department*

WILLIAM H BURMEISTER, A.B., M.D., *Assistant Professor, Pathology*

THOMAS HARRIS BOUGHTON, M.D., M.S., *Instructor*

FREDERICK HOWARD FALLS, A.B., M.D., *Instructor*

IRWIN WOODWARD BACH, M.S., M.D., *Assistant*

Required Course—Second Year

General Pathology and Pathological Histology.—General pathology, including the gross and microscopic study of fresh and preserved pathological material. Lectures, recitations, and demonstrations. 2; *one and a half semesters*; laboratory work, 3 two-hour periods, *one and a half semesters*.

Assistant Professor BURMEISTER and Dr. BOUGHTON

Required Courses—Third Year

Special Pathology.—Continuation of the course in general pathology; the gross and microscopic examination of organs, post-mortem bacteriology, and experimental pathology. The work is closely correlated with post-mortem examination (see autopsies) and also with clinical pathology. 2 two-hour periods; *II*. Professor DAVIS and assistants

Autopsies.—Cook County Hospital. Third-year students are required to attend 16 autopsies. 1 two-hour period; *II*.

Required Course—Fourth Year

Autopsies.—Fourth-year students are required to attend 16 autopsies. 1 two-hour period; *I* or *II*.

Optional Courses

Advanced Laboratory and Research Work.—Open to a limited number of qualified students. Hours to be arranged.

Professor DAVIS and Assistant Professor BURMEISTER

Diagnosis of Tumors.—Open to students who have had courses in general and special pathology. Hours to be arranged.

*Division of Bacteriology***Required Course**

[General Bacteriology and Protozoology.—Pathogenic bacteria and protozoa. Immunity. Lectures, demonstrations, and laboratory, 160 hours. *Second year; I.* NOTE—Owing to changes in the curriculum, bacteriology is transferred from the first to the second year. Not to be given in 1914-15.]

Optional Course

Advanced Work and Research in Bacteriology.—Limited to qualified students. Hours to be arranged.

Professor DAVIS

PHARMACOLOGY AND THERAPEUTICS

BERNARD FANTUS, M.D., *Professor, Pharmacology and Therapeutics*

ALFRED OGLE SHAKLEE, B.S., M.D., *Assistant Professor, Pharmacology*

ADOLPH HARTUNG, M.D., *Instructor, Roentgenology*

WALTER EDWARD SIMMONDS, M.D., *Assistant, Physical Therapy*

ERIC GOSTA HAKANSSON, *Student Assistant in Mechanotherapy*

General Statement

The aim of the course is to give a practical knowledge of a limited number of drugs of therapeutic utility. Laboratory work is emphasized. The work includes the study of remedial measures other than drugs, especially of physical remedies and of diet.

Required Courses—Second Year

Elementary Prescription-Writing and Pharmacy.—Each student prepares a typical specimen of each of the more important classes of pharmaceutical preparations, and practises prescribing them. 1; *I.*

Professor FANTUS and Assistant Professor SHAKLEE

Systematic Pharmacology.—Important drugs with predominant local action. Lectures and recitations, 1; *II.* Laboratory, 1 two-hour period; *II.*

Professor FANTUS and Assistant Professor SHAKLEE

Non-Pharmaceutical Therapeutics.—Remedial measures other than drugs, such as psychotherapy, mechanotherapy, hydrotherapy, electrotherapy, radio-

therapy, climatotherapy, and dietetics. Laboratory work in mechanotherapy and hydrotherapy: practise with electrotherapeutic and roentgenologic apparatus. Lectures and recitations, 3; *II*. Laboratory, 1; *II*.

Professor FANTUS, Drs. HARTUNG and SIMMONDS, Mr. HAKANSSON

Required Courses—Third Year

Systematic Pharmacology.—Important drugs with predominant systemic action. Lectures and recitations, 2; *I*. Laboratory, 1 three-hour period; *I*.

Professor FANTUS and Assistant Professor SHAKLEE

General Therapeutics.—Remedial measures from the standpoint of the desired effect, e. g., diuresis, diaphoresis, catharsis, antipyresis, analgesia, anesthesia, hypnosis, antiseptis. Prescription-writing for hypothetical cases. Lectures and recitations, 2; *II*.

Professor FANTUS

Optional Courses

Special Experimental Pharmacodynamics.—Open to a limited number of qualified students of the third or fourth year. Three hours laboratory a week, 48 hours a *semester*.

Professor FANTUS and Assistant Professor SHAKLEE

Biologic Drug Assay.—The valuation of the activity of drugs that cannot be assayed by chemical methods. Three hours laboratory a week, 48 hours a *semester*.

Professor FANTUS and Assistant Professor SHAKLEE

Research.—Qualified graduates or undergraduates may do research laboratory work under direction of the members of the staff.

Seminar.—Discussion of current pharmacologic and therapeutic literature and the results of research work in progress.

PHYSIOLOGY AND PHYSIOLOGICAL CHEMISTRY

GEORGE PETER DREYER, A.B., Ph.D., *Professor, Physiology, and Physiological Chemistry, and Head of the Department*

WILLIAM HENRY WELKER, A.C., Ph.D., *Assistant Professor, Physiological Chemistry*

CLAYTON S SMITH, B.S., M.S., Ph.D., *Instructor, Physiological Chemistry*

GROVER TRACY, A.B., *Assistant, Physiological Chemistry*

J CRAIG SMALL, B.S., *Student Assistant, Physiological Chemistry*

HOWARD E CURL, A.B., *Student Assistant, Physiology*

Division of Physiology

General Statement

The apparatus of this department includes sphygmographs, sphygmomanometers, medical battery, and that used for clinical examination of the blood.

Required Courses—First Year

Physiology.—Lectures, class room experiments, demonstrations. 3; *II*.

Professor DREYER

Experimental Physiology.—Laboratory, recitations, conferences. 2 three hour periods; *II*.
Professor DREYER and assistants

Required Courses—Second Year

Physiology.—Lectures, class experiments, demonstrations. 4; *I, II*.
Professor DREYER

Experimental Physiology.—Laboratory, recitations, and conferences. 1 three-hour period; *I, II*.
Professor DREYER and assistants

Optional Courses

Advanced Laboratory Course.—Qualified students may take the optional course intended primarily as graduate work. It consists of a series of exercises introducing the various graphic methods of physiological demonstration and research, and varies in kind and amount according to individual needs.

Journal Club and Seminar.—Reports of significant articles in the current journals; special topics.

Division of Chemistry

Required Courses—First Year

Organic Chemistry.—Biological chemistry; fats, proteins, and carbohydrates. Lectures, demonstrations, and conferences, 2; *I*. Laboratory, 2 three-hour periods; *I*.
Dr. SMITH, Messrs. TRACY and SMALL

Physiological Chemistry and Toxicology.—Lectures, demonstrations, and conferences, 2; *II*. Laboratory, 2 three-hour periods; *II*.

Assistant Professor WELKER, Dr. SMITH, Messrs. TRACY and SMALL

Prerequisite: A course in organic chemistry as outlined above or an equivalent.

Required Course—Second Year

Physiological Chemistry and Toxicology.—Lectures, demonstrations, and conferences. 2; *I*. Laboratory, 2 three-hour periods; *I*.

Assistant Professor WELKER, Dr. SMITH, Messrs. TRACY and SMALL

Optional Courses

Prerequisite: The required courses in organic and physiological chemistry or the equivalent.

Quantitative Urinary Analysis.—Lectures, 1; laboratory, 6.

Assistant Professor WELKER, Dr. SMITH and Mr. TRACY

Toxicology.—Lectures, 1; laboratory, 6. Dr. SMITH and Mr. TRACY

Sanitary Chemistry.—Water and sewage analysis; purification. Lecture, 1; laboratory, 6. Assistant Professor WELKER and Mr. TRACY

Food Analysis.—Composition, adulteration, and preservation. Lecture, 1; laboratory, 6. Assistant Professor WELKER and Dr. SMITH

Research.—Open to persons with the requisite scientific training for original investigation under the direction of a member of the staff.

Seminar.—Discussion of the results of recent researches in chemical biology. 1; I, II.

SURGERY

DANIEL ATKINSON KING STEELE, M.D., LL.D., *Professor, and Head of the Department*

Division of General Surgery

DANIEL ATKINSON KING STEELE, M.D., *Professor, Clinical Surgery*

THOMAS ARCHIBALD DAVIS, M.D., *Professor, Clinical Surgery*

WILLIAM MCINTYRE HARSHA, A.B., M.D., *Professor, Surgery and Clinical Surgery*

ALBERT JOHN OCHSNER, B.S., M.D., *Professor, Surgery and Clinical Surgery*

DANIEL NATHAN EISENDRATH, A.B., M.D., *Professor, Surgery and Clinical Surgery*

CHARLES DAVISON, M.D., *Professor, Surgery and Clinical Surgery*

ALBERT EDWARD HALSTEAD, M.D., *Professor, Surgery and Clinical Surgery*

CHARLES EDWARD HUMISTON, M.D., *Associate Professor, Clinical Surgery*

NELSON MORTIMER PERCY, M.D., *Associate Professor, Clinical Surgery*

EDWARD MILTON BROWN, M.D., *Associate Professor, Clinical Surgery*

FREDERICK GEORGE DYAS, M.D., *Assistant Professor, Surgery and Clinical Surgery*

GEORGE FARNSWORTH THOMPSON, B.S., M.D., *Assistant Professor, Surgery and Clinical Surgery*

FRANK DONALD MOORE, M.D., *Assistant Professor, Surgery and Clinical Surgery*

JOHN MILTON BERGER, M.D., *Instructor, Surgery, and Assistant, Clinical Surgery*

GEORGE LUTHER DAVENPORT, M.D., *Instructor, Surgery*

RAYMOND WILLIAM MCNEALY, M.D., *Instructor, Surgery*

HENRY LESTER BAKER, M.D., *Instructor, Surgery*

HOWARD OSCAR SHAFER, M.D., *Instructor, Surgery*

CHARLES HERBERT PHIFER, M.D., *Instructor, Surgery*

JOHN ROSS HARGER, B.S., M.D., *Instructor, Surgery and Minor Surgery*

ARRIE BAMBERGER, M.D., *Instructor, Surgery and Minor Surgery*

OSCAR EUGENE NADEAU, B.S., M.D., *Instructor, Surgery (Surgical Pathology)*

JOHN HAROLD EDGECOMB, M.D., *Instructor, Clinical Surgery*

RICHARD ROOT RUPERT, M.D., *Assistant, Clinical Surgery*

CHARLES C. CLARK, M.D., *Assistant, Clinical Surgery*

MAX MEYEROVITZ, M.D., *Assistant, Clinical Surgery*

GEORGE WASHINGTON POST, B.S., A.M., M.D., *Assistant, Clinical Surgery*

ALEXANDER DONALD FERGUSON, M.D., *Assistant, Clinical Surgery*

ROBERT EMMET FLANNERY, M.D., *Assistant, Clinical Surgery*

CARL ALBERT MEYER, M.D., *Assistant, Clinical Surgery*

CHARLES WARREN STIGMAN, M.D., *Assistant, Clinical Surgery*

Required Courses—Third Year

Surgery and Surgical Pathology.—Conferences and recitations. 2; *I, II.*
 Assistant Professors MOORE, DYAS, HARGER and THOMPSON

Clinical Surgery.—West Side Free Dispensary. Bandaging, surgical dressings, and surgical appliances. 3 two-hour periods, three weeks.

Assistant Professor HARGER, Drs. BAMBERGER and C. FISCHER

Clinical Surgery.—Cook County Hospital. 2; *I or II.*

Assistant Professor THOMPSON

Clinical Surgery.—Cook County Hospital. 2; *I or II.*

Assistant Professor HUMISTON

Clinical Surgery.—Cook County Hospital. 2; *I or II.*

Assistant Professor DYAS

Required Courses—Fourth Year

Practise of Surgery.—(See calendar below.) Lectures: 1; *I, II.* Quiz: 1; *I, II.*

October

Surgery of the Head and Neck.—Professor OCHSNER

November

Surgery of the Thorax.—Professor EISENDRATH

December

Surgery of the Stomach.—Professor HARSHA

January

Surgery of the Duodenum and Intestines.—Professor STEELE

February

Hernia and Post-Operative Treatment.—Professor DAVISON

March

Surgery of the Liver, Pancreas, and Spleen.—Professor DAVISON

April and May

Surgical Diseases and Injuries of the Bones.—Professor HALSTEAD

Drs. PHIFER, BERGER, DAVENPORT, McNEALY, BAKER, and SHAPER

Clinical Surgery.—University Hospital. 1 two-hour period; 8 weeks.

Professor STEELE, Drs. BAKER and CLARK

Clinical Surgery.—University Hospital. 1 two-hour period; 8 weeks.

Professor DAVISON, Assistant Professor MOORE, Drs. BERGER and MEYEROVITZ

Clinical Surgery.—West Side Hospital. 1 two-hour period; 8 weeks.

Professor T. A. DAVIS and Drs. EDGECOMB, RUPERT and STIGMAN

Clinical Surgery.—Cook County Hospital. 1 two-hour period; 8 weeks.

Professor DAVISON

Clinical Surgery.—Cook County Hospital. 1 two-hour period; 8 weeks.

Assistant Professor DYAS

Clinical Surgery.—West Side Hospital. 2; 8 weeks.

Associate Professor E. M. BROWN and Drs. HARGER and FERGUSON

Clinical Surgery.—College. 2; *I* or *II*.

Associate Professor PERCY and Drs. POST and FLANNERY

Clinical Surgery.—St. Luke's Hospital. 4 two-hour periods; *I*.

Professor HALSTEAD

Clinical Surgery.—St. Luke's Hospital. 4 two-hour periods; *II*.

Professor HARSHA

Clinical Surgery.—Augustana Hospital. 4 two-hour periods; *II*.

Professor OCHSNER, Associate Professor PERCY, and Dr. FLANNERY

Surgical Pathology.—Laboratory. 1 two-hour period; 8 weeks.

Dr. NADEAU

Surgical Seminar.—Work in co-operation with the departments of medicine and obstetrics. For this work the student receives 48 hours credit, 16 in each department, although this work is in one department only. During the first semester, the groups meet only informally and abstracts are prepared and submitted for criticism. During the second semester, each group will be assigned one hour in which to present its work before the entire class.

Professor STEELE and assistants

Division of Orthopedic Surgery

JOHN LINCOLN PORTER, M.D., *Professor, Orthopedic Surgery*

CHARLES MAYER JACOBS, M.D., *Associate Professor, Clinical Surgery (Orthopedic)*

DAVID ALEXANDER, M.D., *Instructor*

HARRISON WILLIS MALTBY, M.D., *Assistant*

WILLIAM ARTHUR CLARK, M.D., *Assistant*

Required Courses—Third Year

Orthopedic Surgery.—Lectures. 1; *I*.

Professor PORTER

Clinical Orthopedic Surgery.—College amphitheatre. 1; *I* or *II*.

Professor PORTER

Clinical Orthopedic Surgery.—Cook County Hospital. 1; *I* or *II*.

Associate Professor JACOBS

Required Course—Fourth Year

Clinical Orthopedic Surgery.—St. Luke's Hospital. Limited to two students who serve as externes to Professor Porter in conjunction with Professors Harsha and Halstead. Daily, 8-12; *I, II*.

Division of Genito-Urinary Surgery

DANIEL NATHAN EISENDRATH, A.B., M.D., *Professor, Surgery and Clinical Surgery (Genito-Urinary)*

GEORGE FRENCH STROTHER CARY, M.D., *Instructor*

IRVING SUNTHIMER KOLL, M.D., *Instructor*

CHARLES MORGAN MCKENNA, M.D., *Instructor*

ELMER WELLPOTT SCHNOOR, M.D., *Assistant*

Required Courses—Fourth Year

Genito-Urinary and Venereal Diseases.—Lectures. 1; *I.*

Professor EISENDRATH

Genito-Urinary and Venereal Diseases.—West Side Free Dispensary. Clinics and Conferences. 6.

Professor EISENDRATH and Drs. CARY, KOLL, MCKENNA, and SCHNOOR

Required Courses—Fourth Year

Clinical Surgery (Genito-Urinary).—College amphitheatre. 2; eight weeks.

Professor EISENDRATH and Drs. CARY, KOLL, MCKENNA, and SCHNOOR

Clinical Surgery (Genito-Urinary).—Michael Reese Hospital. 4; *I, II.*

Professor EISENDRATH and Dr. SCHNOOR

Division of Operative Surgery

WILLIAM FULLER, M.D., *Associate Professor*

BERT LESLIE TAYLOR WOODS, M.D., *Instructor*

WILLIAM CHESTER SMITH, M.D., *Instructor*

ARCHIE JAMES GRAHAM, M.D., *Instructor*

Required Course—Second Year

Operative Surgery.—Operations on the cadaver and on animals. 2; *II.*

Associate Professor FULLER and Drs. WOODS, SMITH, and GRAHAM

Required Course—Third Year

Operative Surgery.—In the year 1914-15 the course described above will be given to the third-year class. 2; *I.*

Associate Professor FULLER and Drs. WOODS, SMITH, and GRAHAM

Division of Laryngology, Rhinology, and Otology

JOSEPH C. BECK, M.D., *Associate Professor, Surgery*

RICHARD HUNT BROWN, M.D., *Assistant Professor, Clinical Surgery*

LILLIAN ETHEL TAYLOR, M.D., *Instructor, Surgery*

JOHN ALGERNON CAVANAUGH, M.D., *Instructor, Surgery*

HAROLD BALLENGER, M.D., *Instructor, Surgery*

CLIFFORD BULLEN, M.D., *Instructor, Surgery*

EUGENE BERMINGHAM, M.D., *Instructor, Surgery*

Required Courses—Third Year

Laryngology and Rhinology.—The diseases of the throat and nose. Lectures. 1; 10 weeks. Associate Professor BECK

Laryngology and Rhinology.—College amphitheatre. 1; *I or II*. Associate Professor BECK, Assistant Professor BROWN and Drs. TAYLOR and KAVANAUGH

Laryngology and Rhinology.—West Side Free Dispensary. 6; four weeks.

Associate Professor BECK and Drs. TAYLOR, CAVANAUGH, BALLENGER, BULLEN, and BIRMINGHAM

Optional Courses

Clinical Laryngology and Rhinology.—Cook County Hospital. 1. Associate Professor BECK

Laryngology and Rhinology.—Clinics and conferences. Cook County Hospital. 1 two-hour period. Associate Professor BECK

Division of Otology

NORVAL PIERCE, M.D., *Professor, Surgery (Otology and Clinical Otology)*

Required Course—Third Year

Otology.—Lectures; the surgical anatomy, physiology, and pathology of the ear; 1; six weeks. Professor PIERCE

Clinical Surgery (Otology).—Illinois Eye and Ear Infirmary. 4 periods of one hour each. Professor PIERCE

SUMMARY OF HOURS

	First Year		Second Semester		Total
	Didactic	Laboratory	Didactic	Laboratory	
ANATOMY:					
Gross	32	112	32	112	288
Microscopic	32	160	32	64	288
CHEMISTRY:					
Organic	32	96	..	...	128
Physiological .....	..	...	32	96	128
PHYSIOLOGY .....	..	...	48	96	144
Total.....	96	368	144	368	976

Second Year

Subjects	First Semester		Second Semester		Total
	Didactic	Laboratory	Didactic	Laboratory	
Anatomy					
Topographical	32	96	...	...	128
Laboratory Diagnosis .....	..	...	...	64	64
Non-Pharmaceutical Therapeutics ...	..	...	48	16	64
Pharmacology .....	..	...	32	32	64
Prescription Writing and Pharmacy .....	..	16	...	...	16
Pathology	32	96	16	48	192
Physical Diagnosis .....	..	...	16	32	48
*Physiology	64	48	64	48	224
*Physiological Chemistry.....	32	96	...	...	128
Surgery (Operative) .....	..	...	...	32	32
Total.....	160	352	176	272	960

Third Year

Subjects	First Semester		Second Semester		Total
	Didactic	Clinical	Didactic	Clinical	
†Dispensary .....	..	75	...	75	150
Laboratory Diagnosis	16	48	...	...	64
Laryngology and Rhinology.....	..	...	10	16	26
Hygiene	32	...	...	24	56
‡Internal Medicine	80	88	64	40	272
Medical Jurisprudence .....	..	...	16	...	16
Pathology .....	..	...	...	64	64
Autopsies .....	..	...	...	...	32
Pediatrics	16	...	16	16	48
Pharmacology and Therapeutics.	32	48	32	...	112
Obstetrics	32	10	32	10	84
Otology	6	4	...	...	10
General Surgery	32	32	32	32	128
Orthopedic Surgery	16	16	...	16	48
Operative Surgery .....	..	32	...	...	32
Genito Urinary Surgery.....	16	...	...	...	16
Total	278	353	202	293	1158

*These courses will be presented for the year 1914-15 only.

†The Dispensary hours include the following subjects: Medicine, Surgery, Laryngology, Genito-Urinary Diseases, and Orthopedic Surgery.

‡Including Physical Diagnosis for the year 1914-15.

Fourth Year

Subjects	First Semester		Second Semester		Total
	Didactic	Clinical	Didactic	Clinical	
*Autopsies .....	..	...	...	...	32
Dermatology	32	16	...	...	48
†Dispensary .....	..	...	...	...	162
Genito-Urinary Surgery .....	..	...	...	16	16
Gynecology	32	...	...	52	84
Medicine	96	50	64	50	260
Neurology	16	16	16	16	64
Obstetrics	32	24	32	24	112
Ophthalmology	12	...	...	16	28
Pediatrics .....	..	24	...	24	48
Psychiatry .....	..	...	16	8	24
Roentgenology .....	..	...	...	4	4
Surgery	32	94	48	94	268
Surgical Pathology .....	..	...	...	16	16
Total.....	252	224	176	320	1166
Grand total of hours for the four years.....					4260
Duplication of hours					208
Actual number of hours.....					4052

FURTHER INFORMATION

For further information, including circular, address *The Secretary of the College of Medicine*, Congress and Honore Sts., Chicago, Ill.

*This subject will be presented in the senior year for the year 1914-15 only.

†The Dispensary hours include the following subjects: Dermatology, Gynecology, Neurology, Pediatrics, and Ophthalmology.

THE COLLEGE OF DENTISTRY

(For the faculty of the College of Dentistry, see page 37; for a description of the building, see page 57.)

LOCATION

The College is situated on the corner of Harrison and Honore streets in Chicago, directly opposite the Cook County Hospital, in the center of the clinical field of Chicago. On the west is the West Side Hospital, and on the north the College of Medicine of the University of Illinois.

PROSTHETIC LABORATORIES

The prosthetic laboratories are three in number, one for each class. They are equipped with new model benches and each student is provided with two drawers, gas, compressed air, and electric light. Each laboratory is supplied with hot and cold water, electric lathes for grinding and polishing, molding benches, furnaces, and casting devices.

INFIRMARY

The infirmary occupies the top floor. The equipment includes chairs of improved type with fountain cuspidors and instrument brackets attached. Each chair is furnished with an electric engine, electric light, compressed air, gas connection, and a stand for instrument case. A sterilizer, stationed near the center of the infirmary, is continuously in operation. In a cabinet on one of the walls are exhibited specimens of various drugs, both in their crude state and in the various forms in which they are prepared for use in dentistry.

At one end of the infirmary is a laboratory for the prosthetic work, equipped with apparatus and tools for soldering, plate work, polishing, etc., and a laboratory for porcelain work with electric furnaces and porcelain ovens.

LIBRARY

The Library is housed with the Quine Library of the College of Medicine in the medical building adjoining. Through the courtesy of Mrs. Margaret Cook, wife of the late Dr. George Washington Cook, former Dean of the College of Dentistry, the dental library belonging to his estate, comprising two hundred volumes, besides unbound volumes of dental journals, has been donated to the College. A dozen dental journals are received regularly. The library is open from 9 a. m. to 5 p. m. daily during the school year, with a librarian in attendance.

ADMISSION

An applicant for admission to the College of Dentistry must be at least 18 years of age. Women are admitted on the same terms as men.

Each candidate for admission must present a certificate of graduation from an accredited high school, or an equivalent; which equivalent is interpreted to mean *15 units* of preparatory work in an accredited high school or academy or a state normal school.*

No "conditions" can be permitted; the full 15 units must be offered.

The foregoing requirements may be satisfied either (a) *by certificate* or (b) *by examination.*

(a) Entrance credits will be accepted *by certificate* from the following sources:

(1) From high schools and academies in the State of Illinois which are accredited to the University of Illinois.

(2) From the state normal schools of Illinois and other state normal schools having equal requirements for graduation.

(3) From schools accredited by the North Central Association of Colleges and Secondary Schools.

(4) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.

(5) From schools approved by the New England College Entrance Certificate Board.

(b) Entrance credits may be made *by examination:*

(1) In the examinations conducted by the Registrar of the University of Illinois at the University in Urbana in January, July, and September of each year. For program see pages 77-79.

(2) In the examinations conducted by the Registrar of the University of Illinois at the College of Medicine in the fall. In 1915 these examinations will be held on September 23, 24.

(3) In the examinations conducted in June of each year by the College Entrance Examination Board. See page 73.

(4) In the examinations conducted by the Regents of the University of the State of New York.

Applicants for admission coming from institutions of higher learning, whether candidates for the freshman class or for advanced standing, must present entrance credentials or pass entrance examinations as indicated above.

The College of Dentistry will receive no student who is not present within 10 days after the opening day of the session in each year, or in case of necessary delay by reason of illness, properly certified by the attending physician, within 20 days after the opening day.

ADMISSION TO ADVANCED STANDING

Persons who can meet the requirements for admission to this college and who have studied dentistry in other schools for not less than one year may be

*A unit is the amount of work represented by the pursuit of one high-school subject for one year of 36 weeks, with five forty-minute recitations each week, or the equivalent in laboratory or other practise.

admitted to advanced standing after satisfying the faculty that they have completed an amount of work equivalent to that which is exacted by this college in the respective classes.

Students who have had one or more years in the College of Medicine or in other medical colleges of equal rank, are allowed credit toward graduation for so much of the required course in dentistry as was included in their medical course. They must, however, be registered for full time. Graduates of the University of Illinois with degree of Bachelor of Arts or Bachelor of Science, who have taken courses in biology and chemistry in the University, can secure advanced standing in the course in dentistry, provided they have done full work in the sciences required in the dental curriculum.

Graduates of recognized medical colleges may secure advanced credit for work and one year of time toward graduation, and are excused from lectures and examinations in general anatomy, chemistry, histology, pathology, and physiology, but are required to take lectures and examinations in dental subjects.

LENGTH OF COURSE

The courses are graded and cover three years of college work. The teaching of one year is not repeated, and the course is progressive, the several classes having separate laboratories and at no time taking lectures or demonstrations together.

If, for any cause, a regular student desires to extend his studies over a period of four or more years, a course of study will be specially arranged for him.

REQUIREMENTS FOR GRADUATION

The degree of Doctor of Dental Surgery will be conferred on students who have completed the course of instruction, attended the required time, and passed satisfactory final examinations. To be eligible to the degree, the student must be twenty-one years of age, must possess a good moral character, and must have paid all fees.

The monthly report of attendance, and the standing of students in quizzes, recitations, laboratory work, and infirmary practise, both operative and prosthetic, are considered in making up the rating of final examinations.

METHOD OF INSTRUCTION

Instruction is given by means of lectures, recitations, demonstrations, and laboratory work. The time of the student is about equally divided between laboratory and clinical work on the one hand and lectures and recitations on the other.

Students are admitted to the laboratories from the beginning of the first year. The laboratory work is closely correlated with the lectures and clinical studies.

In the clinical work, methods both of investigation and of reasoning are carefully and systematically taught. Diagnosis, prognosis, and indications for treatment receive no less attention than methods of construction and the technic of procedures.

DESCRIPTION OF COURSES

BACTERIOLOGY, PATHOLOGY, AND ORAL SURGERY

FREDERICK BROWN MOOREHEAD, D.D.S., M.D., F.A.C.S., *Professor, Oral Surgery, Bacteriology, and Pathology, and Head of the Department*

DAVID JOHN DAVIS, B.S., M.D., *Professor, Pathology*

LOUIS SCHULTZ, D.D.S., M.D., *Assistant Professor, Oral Surgery and Pathology*

FRANK JOSEPH BERNARD, D.D.S., *Instructor, Extracting*

EDWIN PAUL SWATEK, D.D.S., *Clinical Assistant, Oral Surgery*

IRWIN WOODWARD BACH, M.S., M.D., *Assistant, Bacteriology and Pathology*

ANNA BOLAN, *Nurse in Oral Surgery Clinic*

General Bacteriology.—Classification of bacteria, products of bacterial growth, methods of observing, cultivating, isolating, and identifying bacteria; sterilization, disinfection, pathogenic bacteria in diseased conditions of the mouth; cultural and staining technic; dental caries, pathological conditions of first and second dentition, sensitive dentin, hyperemia and congestion, pulp nodules, putrescent pulps, acute and chronic alveolar abscesses, diseases of the peridental membrane, necrosis of hard and soft tissues. Lectures, recitations, demonstrations, laboratory work. 112-7; I; 2*.

Professor DAVIS and assistants

General Pathology.—Circulatory disturbances, retrogressive and progressive processes, inflammation, tumors; pathology of important organs; blood and urine analysis; disease processes involving the teeth and buccal cavity. Lectures, recitations, demonstrations of fresh and preserved specimens, laboratory work. 112-7; II; 3.

Professor DAVIS and assistants

Special Bacteriology and Pathology.—Relation of foci of infections found in the mouth to constitutional diseases; the pulp and peri-dental membrane. Practical cases, from the surgical clinic and infirmary, supplemented by lectures, recitations, demonstrations, and laboratory work. 96-3; I, II; 3.

Professor MOOREHEAD, Assistant Professor SCHULTZ, and assistants

Oral Surgery.—Major operations performed in the clinic; diagnosis and treatment of the minor lesions.

(a) *Lectures and recitations* on etiology, diagnosis, treatment, and local and general anesthetics. 64-2; I, II; 3.

(b) *Surgical Clinic.*—Every Monday morning from 9:00 to 12:30. Diagnosis, case discussions, and operations. Reports. 112-3½; I, II; 3.

Professor MOOREHEAD, Assistant Professor SCHULTZ, and assistants

Extracting Clinic.—Selection and application of forceps and elevators; demonstration of nitrous oxid, oxygen, novocain; conduction and infiltration; asepsis and after treatment of cases. Two afternoons a week. 192-6; I, II; 3.

Dr. BERNARD

*The first number indicates the total number of hours in a course; the number after the hyphen indicates the number of exercises a week; the Roman numerals I, II indicate the first and second semesters, and the final numbers 1, 2, 3 indicate respectively the freshman, junior, and senior years. Thus, 112-7; 1; 2 means that the course includes 112 hours, 7 a week, given during the first semester of the junior year.

OPERATIVE DENTISTRY

DONALD MACKEY GALLIE, D.D.S., *Professor*

LOUIS E BAKE, D.D.S., *Assistant Professor*

JOHN C MCGUIRE, D.D.S., *Superintendent of Infirmary, Instructor*

JACOB HYMAN KAPLAN, D.D.S., *Instructor*

W IRA WILLIAMS, D.D.S., *Instructor*

Operative Dentistry.—Nomenclature; tooth forms in charts, drawings and models; carving in ivory or bone; dissections of the pulp chamber and canals; longitudinal and transverse sections; instrument making and care; cavity preparation in ivory blocks and tooth forms; instruments for different cavities; manipulation, grasps, rests, and direction and control of force; treating, cleaning, and filling root canals; filling materials, their application, preparation, and manipulation. 256-8; I, II; 1. Assistant Professor BAKE, Dr. KAPLAN

Operative Dentistry.—Cavity nomenclature and preparation; use of the odontotype; inlay technic, both gold and porcelain; correct chair positions, the application of the rubber dam, the use of clamps, wedges, and separation. *Operative Clinic*—Beginning with the second semester, second year students are admitted to the infirmary, and given instruction in oral prophylaxis, followed by regular infirmary work. One lecture and recitation throughout the year. 128 hours laboratory. Professor GALLIE, Assistant Professor BAKE

Operative Dentistry.—Review; management of patients and special cases; treatment and filling of children's teeth; erosion, atrophy, and abrasions. Lectures and recitations. 64-2; I, II; 3.

Professor GALLIE, Assistant Professor BAKE

PROSTHETIC DENTISTRY

GEORGE WALTER DITTMAR, D.D.S., *Professor*

SOLOMON PERRY STARR, D.D.S., *Assistant Professor*

JACOB HYMAN KAPLAN, D.D.S., *Instructor*

W IRA WILLIAMS, D.D.S., *Instructor*

WARREN C HAWTHORNE, M.S., *Instructor, Metallurgy*

Prosthetic Dentistry.—Terminology; materials; impressions; plaster casts and models; base plates; articulation and occlusion; carving, polishing and finishing vulcanite dentures; dies; counter die construction; swaging and soldering; casting aluminum and "fusible metal" plates. 256-8; I, II; 1.

Assistant Professor STARR, Dr. KAPLAN

Prosthetic Dentistry.—Crown work; root preparation, band construction, and crown conformation; restoration of badly decayed roots for crowns; repairing and restoring portions of fractured roots; carving, swaging, and casting cusps; swaging seamless crowns; casting full metal and porcelain faced crowns, cap and pin crowns; grinding and backing facings; application of detachable porcelain crowns.

Bridge work: casting; removable bridge work; tense friction attachments; splints and bar supports; selection of porcelain facings and crowns; grinding, polishing, and staining. 224-7; I, II; 2.

Professor DITTMAR, Assistant Professor STARR, Dr. KAPLAN

Prosthetic Dentistry.—Plate denture construction; the human dental mechanism; temporo-mandibular articulation; prosthetic operations; occluding frames; registration of condyle paths and rotation points of the mandible; physiognomy and temperamental characteristics of individuals and construction of dentures with teeth of proper size, form, shade, and arrangement; grinding, shaping, and staining; continuous gum dentures and vulcanite and metallic bases; partial plates and removable bridge construction; porcelain and forms of porcelain teeth; mineral stains; crowns and bridge construction; splints for the retention of loosened teeth and maxillary fractures; velæ and obturators for the restoration of cleft plates. 32-1; I, II; 3. Professor DITTMAR

Metallurgy.—Physical and chemical properties of metals and alloys; heat, production, and measurement; fusion, vaporization, and distillation; electrical terms, electrolysis and electroplating, and mechanics of forces, levers, etc., as exemplified in the working tools of the craft. Lectures, recitations, and demonstrations. Text-book: Hodgson's *Metallurgy*. 16-1; I. Mr. HAWTHORNE

MATERIA MEDICA AND THERAPEUTICS

EDGAR D COOLIDGE, D.D.S., *Professor*

ARTHUR G NAUMAN, D.D.S., *Instructor*

Materia Medica.—Drugs used in dentistry; terminology of materia medica. 32-1; I, II; 1. Dr. NAUMAN

Materia Medica.—Pharmaceutical preparations and the classification of drugs; administering; conditions which modify effects; action upon the tissues and organs; poisons, their action and treatment. (Illustrated by a series of laboratory and animal experiments.) Lectures and recitations. Text-book: Prinz's *Dental Materia Medica and Therapeutics*. 16-1; I; 2. Professor COOLIDGE

Therapeutics.—Prescription-writing; pathological lesions and their treatment; dental caries; salivary deposits; oral hygiene and prophylaxis. Lectures and recitations. Text-books: Prinz's *Materia Medica and Therapeutics*; Marshall's *Mouth Hygiene*. 16-1; II; 2. Professor COOLIDGE

Therapeutics.—Pathologic conditions of the peridental membrane and pulp; treatment; dental caries; diseases of the dental pulp, hypersensitive dentin, pulp capping, active and passive hyperemia of the pulp, anesthetization and devitalization of the pulp, its removal, and the subsequent treatment and filling of root canals; pulp gangrene, suppuration, and alveolar abscess; discoloration and bleaching; the peridental membrane, pericementitis, apical and complete, septic and non-septic, phagadenic pericementitis, gingivitis, pyorrhea, and stomatitis; preventive treatment; oral prophylaxis; thesis. Text-book: Prinz's *Dental Materia Medica and Therapeutics*. 32-1; I, II; 3. Professor COOLIDGE

ORTHODONTIA

FREDERICK BOGUE NOYES, B.S., D.D.S., *Professor*

Orthodontia.—Normal occlusion; harmonious development of the features; mal-occlusions. Lectures, illustrated by lantern slides and the projectoscope. Text-book: Angle's *Malocclusion of the Teeth*. 32-1; I, II; 3. Professor NOYES

ANATOMY, HISTOLOGY, AND EMBRYOLOGY

FREDERICK BOGUE NOYES, B.S., D.D.S., *Professor, Histology*

ALBERT CHAUNCEY EYCLESHYMER, M.D., Ph.D., *Professor, Anatomy*

NEWTON G THOMAS, A.B., D.D.S., *Instructor, Histology*

ROY LEE MOODY, A.B., Ph.D., *Instructor, Anatomy*

The laboratories for gross anatomy, occupying two floors in the Dental Building, comprise two dissecting rooms and a number of smaller rooms for embalming, sorting, and prosecting. The laboratory for histology and embryology, and the offices and research laboratories are on the third floor of the Medical Building. The equipment includes apparatus for embalming, sectioning, macerating, corroding, and digesting; microtomes, microscopes, paraffin ovens, drawing apparatus, chemicals, glassware, Grüber stains, etc. A small museum contains special dissections, osteological preparations, models, sets of histological, neurological and embryological slides, charts, and lantern slides. The departmental library contains nearly all the standard texts and about 2,500 special monographs. All the English, German, and French anatomical journals are received. The Crerar library is readily accessible and makes it possible to consult practically all literature of anatomy, zoology, and biology.

Systematic Anatomy.—Dissection of the entire body; the respiratory and digestive systems; the head and neck. Lectures, demonstrations, laboratory work, recitations. 288-9; I, II; 1.

Topographical Anatomy.—Head and neck in serial section; topography of the organs and structures. Lectures, recitations, demonstrations, laboratory work. 114-9; I; 2.

Professor EYCLESHYMER, Dr. MOODY

General Histology.—Cell structure and function; relation of cells and intercellular substances and tissues; elementary tissues; histology of the circulatory system, the alimentary tract, and the glands connected with it, the urinary system, the respiratory system, and the skin, nails, and hair. Three hours laboratory and one hour lecture or quiz a week. Text-book: Bailey. 128; I, II, 1.

Professor NOYES, Dr. THOMAS

Dental Histology and Embryology.—The tissues of the teeth, the supporting tissues, and the tissues of the oral cavity; the enamel; operative procedures; preparation of cavity walls; general embryology and embryology of the teeth, mouth, and jaws. Three hours laboratory and one hour lecture or quiz a week. Text-book: Noyes's *Dental Histology and Embryology*. 128; I, II; 2.

Professor NOYES, Dr. THOMAS

Graduate Work

Dental Histology.—In the summer of 1915 a special course of six weeks in dental histology will be offered for those desiring to prepare for teaching in dental schools. The course will consist of at least three hours of laboratory work and one hour's lecture or quiz per week.

PHYSIOLOGY AND CHEMISTRY

GEORGE PETER DREYER, A.B., Ph.D., *Professor, Physiology and Chemistry*

WILLIAM HENRY WELKER, A.C., Ph.D., *Assistant Professor, Chemistry*

CLAYTON S SMITH, B.S., M.S., Ph.D., *Instructor, Chemistry*

GROVER TRACY, B.S., *Assistant, Chemistry*
 J CRAIG SMALL, *Student Assistant, Chemistry*
 HOWARD CURL, A.B., *Student Assistant, Physiology*

Physiology

The students of the College of Dentistry take their work in physiology in the physiology laboratory of the College of Medicine. The work falls in the junior year when the prerequisites, including anatomy, histology, and chemistry, have been in large part completed.

Systematic Human Physiology.—Lectures and recitations. 96-3; I, II; 2.

Practical Physiology.—Demonstrations and laboratory exercises running parallel with the didactic course. 64-2; I, II; 2.

Chemistry

The instruction in chemistry is given in the laboratories of the College of Medicine.

General Inorganic Chemistry.—Metals and non-metals. Four hours lecture and recitation, six hours laboratory a week. Text-book: McPherson and Henderson's *Court in General Chemistry*; Remsen's *Chemical Experiments*. 160; I; 1. Mr. TRACY, Mr. SMALL

Qualitative Analysis.—Metals and acids; the group; solutions of unknown bases, unknown acids, and unknown bases and acids. Four hours lectures and recitations, six hours laboratory a week. Text-book: Gooch and Browning's *Outlines in Qualitative Chemical Analyses*. 80; II, first-half; 2.

Dr. SMITH, Mr. TRACY, and Mr. SMALL

Metallurgy.—Extraction and refining of metals; physical properties. Laboratory analyses of substances related to dentistry, including ores, alloys, solders, and cements. Four hours lectures and recitations, six hours laboratory a week. Text-book: Hodgen's *Practical Dental Metallurgy*. 80; II, second half; 1. Assistant Professor WELKER, Mr. TRACY, Mr. SMALL

DENTAL JURISPRUDENCE

ELMER DELBERT BROTHERS, LL.B., *Lecturer*

Dental Jurisprudence.—The dentist's individual and professional rights and obligations; responsibilities arising from the relation of dentist and patient; dental laws of the various states. *Senior year*. Mr. BROTHERS

RADIOGRAPHY

JOHN C MCGUIRE, D.D.S., *Instructor*

Radiography.—The X-ray as a diagnostic agent; the radiograph; exposure, development, etc. *Senior year*. Dr. MCGUIRE

COMPARATIVE ANATOMY

ELMER S RIGGS, A.B., A.M., *Lecturer*

Evolution of the masticatory apparatus; food habits and digestive processes. 15-1; II. Mr. RIGGS

SUMMARY OF COURSE

Freshman Year

Departments	Hours		
	Didactic	Laboratory	Total
Materia Medica	32	...	32
Anatomy	64	256	320
Histology	32	96	128
Chemistry	96	192	288
Operative Technic .....	..	256	256
Dental Anatomy	32	...	32
Prosthetic Technic .....	..	256	256
Total.....	256	1056	1312

Junior Year

Departments	Hours		
	Didactic	Laboratory	Total
Anatomy	*32	*128	160
Physiology	64	96	160
Materia Medica	32	...	32
Bacteriology	*16	*96	112
Pathology	†16	†96	112
Histology	32	96	128
Prosthetic Dentistry	32	256	288
Operative Dentistry	32	128	160
Comparative Anatomy	†16	...	†16
Metallurgy	10	...	10
Total.....	282	896	1178

Senior Year

Departments	Hours		
	Didactic	Laboratory	Total
Special Bacteriology and Pathology.....	32	64	96
Oral Surgery	64	...	160
Extracting .....	...	256	256
Therapeutics	64	...	64
Orthodontia	32	128	160
Prosthetic Dentistry	64	448	512
Operative Dentistry	64	448	512
Porcelain Art	16	80	96
Jurisprudence (Dental)	16	...	16
Ethics and Economics.....	10	...	10
Total.....	362	144	1376

*First Semester.

†Second Semester.

TEXT BOOKS

Students are requested to consult the head of each department before purchasing text books. The most recent editions are required in every case.

FEEs

Matriculation fee (paid each year).....	\$ 5.00
Tuition, each year (including laboratory and dissection fees).....	150.00
Locker fee	2.00
	<hr/>
	\$157.00

Fees are not returned to students who are suspended or expelled or to those who are absent for any cause except illness. Payments should be made in currency or in Chicago exchange drawn to the order of the University of Illinois.

FEEs ARE PAYABLE IN ADVANCE. Students unable to meet these requirements must make satisfactory arrangements with the Dean at the beginning of the course.

BOARD AND ROOMS

Board and rooms convenient to the College can be obtained at prices varying from four to six dollars a week; rooms without board, furnished or unfurnished, can be obtained at from six to ten dollars per month.

FURTHER INFORMATION

For further information, address

THE DEAN OF THE COLLEGE OF DENTISTRY,
Harrison and Honore Streets, Chicago, Illinois.

THE SCHOOL OF PHARMACY

For the *faculty* of the School of Pharmacy, see page 38; for a description of the *building*, see page 57.

HISTORY

The School of Pharmacy was originally the Chicago College of Pharmacy and was incorporated under that name September 5, 1859. Prior to that time there were but three schools of pharmacy in the country, and these were located in the eastern states.

While the primary object of the institution was to provide instruction in the science and art of pharmacy, other functions were developed. Thus, a code of ethics was early adopted by the members; successful efforts were made to bring about better relations between pharmacists and physicians; the pioneer pharmaceutical library was established; and for eighteen years beginning with 1868 a monthly journal, *The Pharmacist*—the first of its kind in the West—was published.

In October, 1859, the first course of lectures was instituted, occupying three evenings a week for a period of six months. Of the first class, but two students were graduated in 1861. The war caused a suspension of the teaching, and the school was not reopened until 1870. The great fire of 1871 destroyed the equipment, but pharmacists throughout Europe and America extended help to the institution, furnishing a library and an outfit of apparatus, which became the nucleus of the present equipment. In 1872 the instruction was resumed for the second time and has since continued without interruption.

In 1880 the members and graduates of the College took an active part in the formation of the Illinois Pharmaceutical Association, which in the following year secured the passage of the pharmacy law.

The twenty-fifth anniversary of the founding of the College was signalized by the removal of the College to a larger building at 465 State street. Up to this time instruction had been given mainly by means of lectures, laboratory work being entirely optional. Laboratory courses in pharmacy, chemistry, and vegetable histology were now made obligatory. A laboratory devoted entirely to prescription compounding was established in 1892.

The College was formally united with the University May 1, 1896, becoming the technical School of Pharmacy of the University of Illinois. In the management of the School, the Trustees and officers have the assistance of an advisory board of pharmacists, elected by the registered pharmacists of the State through the Illinois Pharmaceutical Association.

LOCATION

The School of Pharmacy occupies the four upper floors in a building located at Michigan Boulevard and Twelfth Street.

A half block east of the building is the Illinois Central Depot; and one block west are the Cottage Grove Avenue, Indiana Avenue, and Twelfth Street surface lines, and the Twelfth Street Station of the South Side Elevated Railroad.

On Michigan Avenue, immediately south of the School, are to be found some of the best low-priced boarding and rooming places in the city. Satisfactory accommodations may be readily secured within a short distance of the School.

EQUIPMENT

The east end of the building is occupied by lecture halls, of which there are three, arranged one above the other and having a seating capacity of from one hundred fifty to three hundred persons.

The laboratories are six in number, including one each for qualitative analysis, quantitative analysis, special work in chemistry, microscopy, manufacturing pharmacy, and dispensing. The total capacity of these laboratories is sufficient for the accommodation of 348 students, working at one time.

The laboratories are supplied with compound microscopes, analytical balances, and special apparatus, and with collections of crude drugs, medicinal plants, chemicals, and pharmaceutical products.

The library contains over two thousand volumes, including, in addition to the usual works of reference, many rare books. Complete files of the leading pharmaceutical journals are an important feature.

COURSES OF INSTRUCTION

For the Degree of Graduate in Pharmacy

In the course leading to the degree of Graduate in Pharmacy the instruction is so arranged as to require the attendance of each student on three days each week and from twenty to twenty-one hours weekly during two annual sessions of thirty weeks each. This arrangement is advantageous to drug clerks who desire to spend a part of their time in drug stores while attending school, thereby adding to their practical experience and at the same time earning a part or all of their living expenses.

The subjects taught are chemistry, general, pharmaceutical, and analytical; pharmacy, theoretical, manufacturing, and dispensing; botany; physiology; and materia medica.

For the Degree of Pharmaceutical Chemist

To meet the demand for special training on the part of students who desire to pursue more extended courses in pharmaceutical chemistry, applied chemistry, and bacteriology, or to prepare themselves for positions under the Food and Drugs Act, this School offers a course leading to the degree of Pharmaceutical Chemist. It comprises two annual sessions of thirty-six weeks each, with instruction on five or six days each week, amounting to about thirty-three hours weekly, or a total of 2,300 hours in the entire course.

This course is partially concurrent with the shorter course and includes all the didactic instruction given in the latter. It consists largely of laboratory practise. In addition to the subjects mentioned above it embraces organic analysis and proximate assays, new remedies, analysis of urine, food and sanitary analysis, bacteriology, and applied microscopy.

The system of teaching includes lectures, illustrations, demonstrations, recitations, written and oral examinations, and individual practise and personal instruction in the various laboratories, much time being devoted to this important part of the student's work.

ADMISSION

The regular session opens September 20, 1915. The shorter course ends April 27, 1916; the longer course closes June 9, 1916.

Applicants for admission to the course leading to the degree of Pharmaceutical Chemist must be at least seventeen years of age and must be graduates of accredited high schools or furnish evidence of a preliminary education equivalent thereto.

Applicants for admission to the course leading to the degree of Graduate in Pharmacy must be at least seventeen years of age and must have completed two years' work in an accredited high school or the full educational equivalent. *Beginning in September, 1916, the requirements for admission to the course leading to the degree of Graduate in Pharmacy will be graduation from an accredited high school, including the completion of 15 acceptable units of high school work, or the full educational equivalent.*

Admission as special students, not candidates for a degree, is restricted to registered apprentices, assistants, or pharmacists, not less than twenty-one years of age.

Students who have pursued courses of study in other colleges of pharmacy will be given credit for such portions of their work as are equivalent to the work required by this college.

GRADUATION

In conformity with the usual custom of pharmaceutical schools, drug store experience is not made a requirement for the degree of Pharmaceutical Chemist. Students who have satisfactorily completed the course will be awarded the degree upon the recommendation of the faculty.

For the degree of Graduate in Pharmacy this School has always required practical drug store experience. The actual time of attendance at the School, amounting to fourteen months, is credited as part of the four years of practical experience required for the degree. Candidates must have attained the age of twenty-one years and have satisfactorily finished the work leading to the degree. Students who have successfully met the scholarship requirement, but are lacking in age or in practical experience, will receive a certificate and will be awarded the diploma when the requirements of age and experience are satisfied.

Persons competent to fulfill the general requirements of admission to the University may be granted credits upon other University courses for equivalent work completed at the School of Pharmacy.

STATE REGISTRATION

To become a registered pharmacist in Illinois, it is necessary to pass an examination before the State Board of Pharmacy, no diplomas being recognized.

The diploma of this School is, however, accepted in lieu of examination for registration in several states and territories; and in other states, including New

York and Pennsylvania, where graduation prerequisite laws are in force, this School is among the schools recognized, and its diploma admits to the examination.

The amendments to the Illinois Pharmacy Law, in effect July 1, 1907, give credit, as a part of the "practical experience in compounding drugs" required by the law, for the actual time of attendance at a recognized school of pharmacy but not to exceed two years for registered pharmacist or one year for registered assistant pharmacist.

FEES AND EXPENSES

For a statement of the fees, see page 120. Fees are payable in advance. Students unable to meet this requirement must make satisfactory arrangements with the Actuary at the beginning of the course.

BOARD AND LODGING.—Good board and lodging, within a short distance of the School, can be had for from five to six dollars per week. This expense may be somewhat reduced by two or more students rooming together. The Actuary keeps a list of suitable boarding and rooming places, with their rates.

SELECTION OF SEATS.—Seats in the lecture halls and desks in the laboratories will be assigned to students by the Actuary, in the order of enrollment. To enroll, junior students will fill out the matriculation blank and forward it to the Actuary, together with credentials for admission and the matriculation fee of five dollars; senior students will make a payment on tuition account of five dollars. It is of advantage to students to matriculate early.

OPPORTUNITIES FOR EMPLOYMENT.—The Actuary keeps a register of students desiring employment and of pharmacists wishing to employ students. Students desiring employment are invited to correspond with him.

FURTHER INFORMATION

Further information may be found in the special announcement of this school, which may be obtained from the ACTUARY, SCHOOL OF PHARMACY, Michigan Avenue and Twelfth Street, Chicago.

PART III
DESCRIPTION OF COURSES

DESCRIPTION OF COURSES

EXPLANATION

The arrangement of subjects in the following Description of Courses is alphabetical. The connections of allied departments are indicated by cross references.

Following the description of each course of instruction will be found the requirements, if any, for admission to that particular course. The sequence indicated by these prerequisites must be followed. For instance, under Art and Design 5, Painting, the prerequisites given are Art and Design 1, 2, and 3. These three courses must be completed before Course 5 may be taken.

If a course not required for graduation is selected by fewer than five students it may be withdrawn for the semester.

Graduate courses are numbered upward from 100.

Credit is reckoned in *semester hours*, or simply *hours*. An *hour* is one class period a week for one semester, or the equivalent in laboratory, shop, or drawing room. Graduate work is not recorded in credit hours, nor do the credit hours of undergraduate courses apply to graduate students enrolled in them.

The semester, and the number of *hours* each semester for which the course counts, are shown after each course; thus: *I, II; (2)*. The Roman figures indicate semesters; the Arabic numerals in parenthesis indicate *hours* of credit for *each semester* for undergraduates. The omission of a course for the current year is indicated by enclosing the entire description of such a course in brackets.

"S," which is prefixed to each of the courses offered in the summer session, means "summer" and is used to distinguish such courses from those of the same number offered during the regular university year. Summer courses do not always cover the same ground as those similarly numbered in the regular session. Students wishing to know in what respect such courses are similar will be gladly furnished with the desired information upon application to the Director.

All courses in the summer session that are granted graduate credit are marked with an asterisk (*). Courses numbered 100 and above are open only to graduate students.

ACCOUNTANCY

(See ECONOMICS.)

AGRICULTURE

SUMMER SESSION COURSES

ALBERT WOODWARD JAMISON, M.S., *Associate in Agricultural Extension*WILLIAM PITT MILLER, B.S., *Assistant in Agriculture*FREDERICK CHARLES BAUER, B.S., *Associate in Soil Fertility*WILLIAM HERSCHEL SMITH, M.S., *Instructor in Animal Husbandry*ELMER ROBERTS, B.S., *Assistant in Agriculture*JOHN JOSEPH GARDNER, B.S., *Instructor in Pomology*

The work in the Summer Session of the University is planned to meet the needs of prospective teachers of agriculture in elementary and high schools.

S 1. Crop Production.—Plant growth, structure; habits and requirements for production of farm crops; seed selection; preparation of seed bed and seeding; tillage, harvesting; rotation; cost of production; purity of grain; grain judging; weeds, identification and control; diseases and control. Lectures, laboratory. (2). Mr. BAUER

S 2. Soils and Fertilizers.—Origin of soil materials; formation; classification; moisture; physical characteristics affecting farm operations; physical improvement of soils; systems of farming; influence of fertility upon crop yields; effect of crops upon soil and succeeding crops; rotations; manures and fertilizers, composition and value; fertility of Illinois soils. Lectures, laboratory. (2½). Mr. BAUER

S 4. Fundamentals of Live Stock Judging.—The names and location of the external parts of various kinds of live stock; the use of the score card; comparative judging; breed identification and types of farm animals. A study of the methods, and a consideration of the materials available for teaching live stock judging in secondary schools. (2½). Mr. SMITH

S 5. Orchard and Garden.—Principles of orcharding; the home orchard from planting to bearing; caring for fruit trees; the home vegetable garden. Lectures, recitations, and field work. (2). Mr. GARDNER

S 6. Poultry.—Types, breeds and varieties. Exhibiting, judging; poultry houses and equipment; breeding, feeding, hatching, and brooding; marketing eggs; fattening, dressing and shipping of poultry. (2½). Mr. MILLER

S 7. General Agriculture.—One-year course. A general course in the elements of agriculture, designed to cover the work offered in a year's high-school course. Type studies of farm crops, fruits, animals, soils, business, and special farm problems practical for school work. Lectures, quizzes, and field work. (2½). Mr. MILLER

S 8. Seminar.—Conferences and discussions on the problems of public-school agriculture; courses of study; extension activities; community work and rural education. Lectures, reference readings and round-table discussions. (½). Mr. JAMISON, Mr. MILLER

S 9. Genetics.—A study of the principles of heredity and variation. The course considers causes and course of evolution, reproduction, transmission of characters, causes of variation, relative effects of heredity and environment and methods of plant and animal improvement. Lectures, quiz work, assigned reading, and demonstrations. (2). Mr. ROBERTS

S 10. Farm Mechanics.—Elementary studies of farm mechanics dealing with the principles of farm machinery; equalizers and hitches; ropes, their care, use, knots and splices; purchase and care of implements for seeding, cultivating, and handling of crops; concrete construction on the farm; design and construction of farm buildings. Lectures, laboratory work. (2½). Mr. JAMISON

S 11. Principles of Feeding Farm Animals.—The classification of feeding stuffs; calculation of rations for farm animals; digestibility and uses of food nutrients. A study of the materials available for practical exercises in secondary schools. (2). Mr. SMITH

AGRICULTURAL EXTENSION

FRED HENRY RANKIN, *Superintendent and Assistant to the Dean, with rank of Assistant Professor*

ARETAS WILBUR NOLAN, M.S., *Assistant Professor*

ALBERT WOODWARD JAMISON, M.S., *Associate*

JOSEPH HARVEY CHECKLEY, B.S., *Assistant*

WILLIAM PITT MILLER, B.S., *Assistant*

ROBERT ENOCH HIERONYMUS, A.M., LL.D., *Community Adviser*

1. Principles and Methods of High School Agriculture.—Features of agricultural science and practise best adapted to high school conditions; the best order and methods for their presentation; suiting course and instruction to the needs of the school community; what laboratory work shall be given; what apparatus may be used; what field work is practical. Practise teaching provided through cooperation with the local high school. II; (5).

Assistant Professor NOLAN

Prerequisite: Two years' work in agriculture.

3. Agricultural Extension Teachings.—Extension enterprises and the way in which they may be of service to the people; farmers' institutes; agricultural extension schools; farmers' clubs and cooperative work in rural communities. II; (1). Assistant Professor RANKIN, Mr. JAMISON

Prerequisite: Agricultural extension 4-5.

4-5. Country Life Problems.—Lectures by members of the University faculty, and by visitors; to show the relations between agriculture and the fundamental sciences, and other businesses: problems of the farm; duties of citizenship. Required of all first-year students. Credit to agricultural freshmen only. (½).

Dean DAVENPORT and other lecturers, Mr. JAMISON in charge

AGRONOMY

CYRIL GEORGE HOPKINS, Ph.D., *Professor, Agronomy*

LOUIE HENRIE SMITH, Ph.D., *Professor, Plant Breeding*

JEREMIAH GEORGE MOSIER, B.S., *Professor, Soil Physics*

*JAMES HARVEY PETTIT, Ph.D., *Professor, Soil Fertility*

ORA STANLEY FISHER, B.S., *Assistant Professor, Soil Fertility.*

FREDERICK CHARLES BAUER, B.S., *Associate, Soil Fertility.*

ALBERT LEMUEL WHITING, Ph.D., *Associate, Soil Fertility*

AXEL FERDINAND GUSTAFSON, M.S., *Associate, Soil Physics*

HAROLD WILSON STEWART, B.S., *Associate, Soil Physics*

WILLIAM LEONIDAS BURLISON, M.S., *Associate, Crop Production*

*Deceased, Dec. 30, 1914.

IRA WILMER DICKERSON, B.S., *Associate, Farm Mechanics*
 KARL JOHN THEODORE EKBLAW, M.S., *Associate, Farm Mechanics*
 ELMER TRYON EBERSOL, A.B., B.S., *Instructor, Crop Production*
 CHESTER OTIS REED, B.S., *Instructor, Farm Mechanics*
 MARVIN EDWARD JAHR, A.B., B.S., *Instructor, Farm Mechanics*
 FORREST ADDISON FISHER, B.S., *Instructor, Soil Physics*
 CLYDE ROSS NEWELL, Ph.B., M.S., *Instructor, Farm Mechanics*
 HOWARD JOHN SNIDER, B.S., *Assistant, Soil Fertility*
 HARRY CHARLES GILKERSON, B.S., *Assistant, Soil Fertility*
 HARRISON FRED THEODORE FAHRNKOPF, B.S., *Assistant, Soil Fertility*
 WARREN RIPPEY SCHOONOVER, B.S., *Assistant, Soil Fertility*
 ORR MILTON ALLYN, B.S., *Assistant, Crop Production*
 EDWARD HARVEY WALWORTH, B.S., *Assistant, Crop Production*

Courses for Undergraduates

Crops: Agronomy 7, 8, 22, 25.

Soils: Agronomy 9, 10, 11, 12, 13, 23.

Farm Mechanics and Buildings: Agronomy 1, 2, 3, 4, 17, 19, 20, 26, 27.

1. Drainage.—Drainage and its surveying operations. Chaining, mapping, leveling, designing, setting grade stakes, laying tile. Lectures and laboratory first half semester; field work second half semester. *II*; (3). Mr. JAHR

Prerequisite: Agronomy 9 (Soil Physics), or its equivalent.

2. Field Machinery.—Construction, principles of operation, adjustment, purchase, and care of implements for soil, seed, and feed preparation, and for seeding, cultivating, harvesting, and handling farm crops. Whiffle-trees and hitches. Lectures and laboratory work including practise in troubles, adjustments, testing, and a detailed study of farm machines which receive power. *I*; (3). Mr. REED

Prerequisite: Agronomy 26 or registration therein.

3. Farm Power Machinery.—Sources of farm power,—the horse as a motor, windmills, waterpower, steam engines, hot-air engines, electric motors—their theory, operation and economy. Internal combustion engines and tractors—methods of ignition, theory, operation, and economy. Transmission of farm power and its application to farm operation. Lectures and laboratory. (Alternating with Mechanical Engineering 71 and 73 if desired. *II*; (3).

Mr. DICKERSON

Prerequisite: Agronomy 26 or registration therein.

4. Farm Buildings.—Construction materials; construction, arrangement, design, and cost estimation of farm buildings, including machine sheds, granaries, cribs, silos, poultry houses, swine houses, various types of barns, and farm residences. Recitations and drafting. *I*; (3). Mr. ECKBLAW

7. Advanced Farm Crops.—History and general utility of each crop; its place in systems of farming with reference to rotations, distribution of labor, cost of production, consumption of products and by-products, storage and marketing. Lectures, assigned reading, laboratory and demonstrations. (The schedule is so arranged that this course may be taken in conjunction with Agronomy 22, Plant Breeding, and students are advised to register for both courses.) *II*; (3). Mr. BURLISON

Prerequisite: Agronomy 25.

8. Special Farm Crops.—Special crops in which the student is particularly interested. Assigned reading on the subject selected, experiments by pot culture in the greenhouse or by plots in the field. By special arrangement, part of this work may be done during the summer vacation. *II*;*(2 to 5).

Prerequisite: Agronomy 7.

Mr. BURLISON

9. Soil Physics and Management.—Origin of soil materials; methods of formation; mechanical composition and classification; moisture; texture as affecting capillarity, osmosis, diffusion, temperature, aeration, and as affected by plowing, harrowing, cultivating, rolling, and cropping; wasting by washing, fall or spring plowing and drainage as affecting moisture, temperature, and root development; real and apparent specific gravity, porosity, water holding capacity, and capillary power; the physical effects of different systems of rotation and of continuous cropping with various crops. Lectures; laboratory. *I* or *II*; (5).

Professor MOSIER, Mr. GUSTAFSON, Mr. STEWART, Mr. FISHER

Prerequisite: Chemistry 2 and 3, one unit in entrance physics, and one year of university work. Regular students are urged to take Chemistry 13a previous to this course, others consult instructor.

10. Special Work in Soil Physics.—Physical properties of special soils; centrifugal analysis of such soils; field observations of the effects of discing, harrowing, and rolling; time and depths of cultivation; soil moisture and temperature; effects of washing of soils; methods of prevention. *I* or *II*; (2-5).

Professor MOSIER, Mr. GUSTAFSON, Mr. STEWART, Mr. FISHER

Prerequisite: Agronomy 9.

11. Soil Biology.—Activities of protozoa, fungi, algae, bacteria, and other forms of life occurring in the soil from the standpoint of fertility; fermentation of crop residues, green and farm manures and their effect upon insoluble plant food; fixation of atmospheric nitrogen, its transformation, assimilation, possible losses, and similar studies of the other essential elements. Lectures; laboratory. *II*; (3).

Dr. WHITING

Prerequisite: Agronomy 12 and Bacteriology 5, or Bacteriology 19.

12. Soil Fertility, Fertilizers, Rotations.—The influence of fertility upon the yield of various crops; effect of different crops upon the soil and upon succeeding crops; different rotations; ultimate effect of different systems of farming upon fertility and productivity; manures and fertilizers, their composition and value; soils cropped continuously with different crops and with a series of crops; the fertility of soils of different types or classes from different sections of Illinois. Lectures; laboratory. *II*; (5).

Professor HOPKINS, Assistant Professor FISHER, Mr. BAUER

Prerequisite: Chemistry 13a; Agronomy 9.

13. Investigation of the Fertility of Special Soils.—Soils in which the student is particularly interested. Determination of the nature and quantity of the elements of fertility; effect upon various crops of different fertilizers added to the soils, as determined by pot cultures, and by plot experiments; systematic study of similar work of experiment stations and experimenters. *I*;*(2, 3, 4, 5).

Professor HOPKINS, Dr. WHITING, Mr. SCHOONOVER

Prerequisite: Agronomy 12.

*In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

16. German Agricultural Readings.—Soils and crops. The current numbers of German journals of agricultural science used as texts. *II*; (2).

Professor HOPKINS

Prerequisite: Two years' work in German; Agronomy 12.

17. Harvesting Machinery.—Expert work on grain binders, corn binders, mowers, hay rakes, loaders, and stackers. For students preparing to do expert work on these machines in the field. Before registering in this course students should consult instructor. *II*; (3).

Mr. REED

Prerequisite: M. E. 71; Agronomy 2, and Agronomy 3, or registration therein.

18a-18b. Investigation and Thesis.—*I, II*;*(5-10).

Professors HOPKINS, SMITH, MOSIER, Dr. WHITING, Mr. ECKBLAW, Mr. DICKERSON

19a-19b. Research in Farm Mechanics.—Consult instructor. *I, II*;*(1-5).

Mr. ECKBLAW, Mr. DICKERSON, Mr. JAHR, Mr. REED

20. Farm Concrete Construction.—Materials used in methods of mixing and placing; simple comparative tests; specifications and estimates. Lectures and laboratory. *II*; (2).

Mr. ECKBLAW

22. Plant Breeding.—The improvement by breeding of field crops, including grains, grasses, and legumes. Lectures, assigned reading, demonstrations and laboratory. (Schedule is so arranged that this course may be taken in conjunction with Agronomy 7.) *II*; (2).

Professor SMITH

Prerequisite: Botany 1; Chemistry 13a; Agronomy 25.

25. Farm Crops.—Plant growth; structure; habits and requirements; preparation of the seed bed; seed selection for productiveness; grading and fanning of grain as a means of improvement; storing; care of stored grain, market grades; judging; examination for purity; testing for vitality; weeds, identification, methods of distribution, eradication, control; diseases of crops and methods of prevention. *I or II*; (4).

Mr. BURLISON

26. Elementary Farm Mechanics.—Ropes, soldering, babbitting, belt lacing, pipe cutting, plumbing, sewage disposal, farm water systems, lighting systems, heating systems, power transmission, elementary mechanics and equalizers. Design of farm power plant. *I or II*; (3).

Mr. ECKBLAW, Mr. NEWELL

27. Drainage Design.—Tile drainage systems from level note data and contour maps; estimating sizes, amounts and cost of tile, and cost of system complete; outlet open ditch system for drainage districts, estimating sizes and costs; drainage district laws; preparing bids on contract jobs, advanced field work. *I*;*(1-5).

Mr. JAHR

Prerequisite: Agronomy 1, or C. E. 27, 31, 33, or 76.

Courses for Graduates

Students who wish to do their major work in agronomy must have had the major courses offered in that subject to undergraduates in the college of agriculture of the University of Illinois, or the equivalent. While every one seeking a doctor's degree with agronomy as a major will be required to have a good knowledge of the whole field of agronomy, each student is expected to be espe-

*In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

cially prepared in some one of the following divisions of the field: soil fertility, plant breeding, soil physics, crop production, and soil biology.

Students who are taking their major work in other departments and choose agronomy as a minor, must have had previously the work in chemistry, botany, and other fundamental sciences prescribed in the undergraduate courses for students in agronomy in the College of Agriculture, or the equivalent.

101. Soil Investigation.—A study of systems of soil investigation; sources of error and methods of control; interpretation of results. *Once a week; second semester.* Professor HOPKINS

103. Soil History.—Different systems of agricultural practise and their ultimate effect upon the soil. *Once a week; second semester.* Professor HOPKINS

112. Plant Breeding.—This course includes a detailed study of the experiments at this station, and of methods and results reported from other states and from foreign countries. *Twice a week; both semesters.*

Professor SMITH

118. Investigation.—A special problem is chosen and worked out under the advice and direction of the instructor. *One to five times a week; both semesters.*

Professors HOPKINS, SMITH, MOSIER, Dr. WHITING

ANIMAL HUSBANDRY

(Including FARM MANAGEMENT.)

HERBERT WINDSOR MUMFORD, B.S., *Professor, Animal Husbandry*
 HARRY SANDS GRINDLEY, D.Sc., *Professor, Animal Nutrition*
 WALTER CASTELLA COFFEY, M.S., *Professor, Sheep Husbandry*
 HENRY PERLY RUSK, M.S., *Assistant Professor, Cattle Husbandry*
 JAMES LLOYD EDMONDS, B.S., *Assistant Professor, Horse Husbandry*
 JOHN A DETLEFSEN, D.Sc., *Assistant Professor, Genetics*
 DANIEL OTIS BARTO, B.S., *Associate, Poultry Husbandry*
 WALTER FREDERICK HANDSCHIN, B.S., *Associate, Animal Husbandry*
 WALTER EDWARD JOSEPH, Ph.D., *Associate, Animal Husbandry*
 SLEETER BULL, M.S., *Associate, Animal Nutrition*
 WILLIAM HERSCHEL SMITH, M.S., *Instructor, Animal Husbandry*
 JAMES BURTON ANDREWS, B.S., *Instructor, Animal Husbandry*
 ELMER ROBERTS, B.S., *Instructor, Genetics*
 WILBUR JEROME CARMICHAEL, B.S., *Assistant, Animal Husbandry*
 JOHN JONATHAN YOKE, B.S., *Assistant, Animal Husbandry*
 CHARLES IVAN NEWLIN, M.S., *Assistant, Animal Husbandry*
 CLAUDE HARPER, B.S., *Assistant, Animal Husbandry*
 JAMES WILBER WHISENAND, B.S., *Assistant, Animal Husbandry*
 ANTON PRASIL, B.S., *Assistant, Animal Chemistry*

Courses for Undergraduates

Beef Cattle: Animal Husbandry 11a, 11b.

Breeding, Feeding, Management and Marketing: Animal Husbandry 6, 28, 29, 30, 32; Farm Management 1.

General Judging: Animal Husbandry 1a, 2a, 4a, 5, 11a, 22.

Genetics: Animal Husbandry 30.

Horses: Animal Husbandry 4a, 4b, 17.

Meat: Animal Husbandry 10, 24.

Nutrition: Animal Husbandry 7, 31.

Poultry: Animal Husbandry 23.

Sheep: Animal Husbandry 1a, 1b, 25, 27.

Swine: Animal Husbandry 2a, 2b, 26.

NOTE.—Students registered in advanced courses such as 22, 28, 29, and 32, will be required to participate in a tour of inspection of representative markets, farms, herds, flocks, and studs.

1a. Sheep: Breeds and Market Classes.—Breeds extensively used for mutton and wool production; type, characteristics, and adaptability; market classes and grades of sheep and wool. Lectures; judging. *I*; (2).

Professor COFFEY, Mr. HARPER

Prerequisite: Animal Husbandry 5 or its equivalent.

1b. Sheep: Breeding, Feeding, and Management.—Pure bred and grade flocks: feeding, housing, and shepherding. Lectures; reference readings. *I*; (3).

Professor COFFEY, Mr. HARPER

Prerequisite: Animal Husbandry 5 and 6, or their equivalents.

It is advisable to take 1a and 1b simultaneously.

2a. Swine: Breeds and Market Classes.—History of the leading breeds; type, characteristics, and adaptability; market classes and grades; market reports. Lectures; judging. *II*; (2).

Mr. CARMICHAEL

Prerequisite: Animal Husbandry 5, or its equivalent.

2b. Swine Husbandry.—Swine raising from the standpoint of market requirements and of economic production; breeding, housing, care, and feeding of swine for breeding purposes. *II*; (3).

Mr. CARMICHAEL

Prerequisite: Animal Husbandry 5 and 6, or their equivalents.

It is advisable to take 2a and 2b simultaneously.

4a. Breeds of Horses and Market Classes of Horses and Mules.—History of the leading breeds; type, characteristics, and adaptability; market classes, grades, and requirements. Lectures; judging. *II*; (2).

Assistant Professor EDMONDS, Mr. YOKE

Prerequisite: Animal Husbandry 5, or its equivalent.

4b. Breeding, Feeding, and Management of Horses.—Methods; care of stallions, mares, and foals; of work horses and drivers at labor and idle; fattening horses for market. Lectures; assigned readings. *II*; (3).

Assistant Professor EDMONDS, Mr. YOKE

Prerequisite: Animal Husbandry 5 and 6, or their equivalents.

It is advisable to take 4a and 4b simultaneously.

5. Fundamentals of Live Stock Judging.—The names and location of external parts of the various kinds of live stock, the use of the score card, comparative judging as a method, breed identification, and types of farm animals. Required in freshman year. *I* or *II*; (3).

Professor COFFEY and members of the department

6. Principles of Feeding and Breeding.—Classification, digestibility, and functions of feed nutrients; classification and feeding values of feed stuffs; feed requirements and calculation of balanced rations for farm animals.

Organic evolution; origin and evolution of domesticated animals; history of systematic breeding; old and new theories of breeding, and their relation to Genetics. Required in sophomore year. *I* or *II*; (3). **Feeding:** Mr. BULL, Dr. JOSEPH, Mr. NEWLIN. **Breeding:** Assistant Professor DETLEFSEN, Mr. ROBERTS.

7. Principles of Animal Nutrition.—Composition and fuel value of feeding stuffs; organic and inorganic food stuffs; digestion, absorption and metabolism; elimination of metabolic products; co-efficients of digestibility and nutritive value of feeding stuffs. *I*; (3).

Professor GRINDLEY, Dr. JOSEPH, Mr. MITCHELL

Prerequisite: Animal husbandry 6 (or course formerly known as Animal Husbandry 21); Chemistry 13a.

9. Investigation and Thesis.—Before registering the student must obtain the approval of the instructor. *I* or *II*; *(5-10). Members of the staff.

10. Meat.—Curing, and care of farm butchering; yield, quality and values of meat and by-products, as related to breeding, feeding, and health of animals; classes, grades, and cuts of meat in wholesale and retail markets. *II*; (3).

Professor COFFEY

Prerequisite: Animal Husbandry 5 and 6, or their equivalents.

11a. Beef Cattle.—Breeds and market classes; history of the leading breeds; beef type from the standpoint of the butcher, the feeder, and the breeder; classification and value of each grade according to current market reports. Judging; lectures; quizzes; assigned readings. *I*; (2).

Assistant Professor RUSK, Mr. SMITH

Prerequisite: Animal Husbandry 5, or its equivalent.

11b. Beef Production.—Breeding and management of pure bred herds; breeding for market; combined beef and milk production; economic factors in cattle feeding; influence of age, grade, breed, condition, and sex; equipment; pork and manure as by-products of beef production. Lectures; quizzes; assigned readings (text book). *I*, (3).

Assistant Professor RUSK, Mr. SMITH

Prerequisite: Animal Husbandry 5 and 6, or their equivalents.

It is advisable to take 11a and 11b simultaneously.

15. Dairy Cattle.—(See Dairy Husbandry 2 and 16.)

[17. Education and Driving of the Horse.—Mental qualities, peculiarities, and limitations; education and training for labor or the road; correct driving; responsibilities of the driver; courtesies of the highway. Lectures; readings; practise. *II*; (2).

Not given 1914-15.

Assistant Professor EDMONDS

Prerequisite: Animal Husbandry 4a and 4b; three semesters' work in the University or its equivalent.]

22. Advanced Stock Judging.—Animal conformation, quality, and condition with reference to market and show yard requirements; the selection of horses, beef cattle, sheep, and swine, for feed lot, market, and exhibition; judging at live stock shows. *I*; (3).

Professor MUMFORD and instructors in charge of prerequisite courses

Prerequisite: Animal Husbandry 1a, 2a, 4a, 11a, or their equivalents. See note, page 270.

23. Poultry: Types, Breeds, and Varieties.—Exhibiting and judging; principles of breeding; poultry houses and equipment; feeding, hatching, and brooding; market eggs and poultry; crate-fattening and dressing; diseases and their treatment. *II*; (5).

Mr. BARTO

Prerequisite: Animal Husbandry 5, or its equivalent.

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

[24. **Meat.**—Influence of type, condition, age, sex, and feeds upon the yield and market grade of meat products. *II*; *(2-5).

Not given, 1914-15.

Professor COFFEY

Prerequisite: Animal Husbandry 10, and 1a or 2a, or 11a, three years' work in the University, or its equivalent.]

25. **Wool.**—Factors affecting quality, quantity, strength, and condition. *II*; (2-5). Offered in alternate years, beginning second semester, 1915.

Professor COFFEY

Prerequisite: Animal Husbandry 1a, 1b; three years' work in the University, or its equivalent.

26. **Swine Husbandry.**—Special problems in swine production. *II*; *(2-5).

Mr. CARMICHAEL

Prerequisite: Animal Husbandry 2a, 2b; three years' work in the University, or its equivalent.

[27. **Sheep Husbandry.**—Factors determining the importance of the industry in leading sheep growing countries, particularly different parts of the United States. *II*; *(2-5). Offered in alternate years.

Not given, 1914-15.

Professor COFFEY

Prerequisite: Animal Husbandry 1a, 1b; three years' work in the University, or its equivalent.]

28. **Advanced History of Breeds of Live Stock.**—Horses, beef cattle, sheep, and swine. Methods of great breeders; performances and pedigrees of famous animals; breed type as exemplified in the University and other herds. Lectures; assigned readings; problems. *I*; *(3-5).

Professor MUMFORD and other members of the department

Breeds offered, 1914-15

Beef cattle	Shorthorns, Aberdeen Angus
Horses	Percherons, Standard breds
Swine.....	Berkshires, Duroc Jerseys
Sheep	Shropshires, Southdowns

Breeds offered, 1915-16

Beef cattle	Herefords, Galloways
Horses	Shires, American Saddlers
Swine	Poland Chinas, Chester Whites
Sheep	Rambouillets, Oxford Downs

Prerequisite: "a" and "b" courses in class of live stock elected. See note, page 270.

29. **Systems of Live Stock Farming.**—Management; climate, soil, topography, location with reference to markets; the supply of land, labor, capital, and managing ability as factors in influencing the choice and adaptation of the various systems. Planning of farms for mixed and live stock systems. *II*; (2).

Mr. HANDSCHIN

Prerequisite: Animal Husbandry 5 and 6, and 6 hours' credit from 1b, 2b, 4b, or 11b. Farm Management 1. See note, page 270.

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

30. Genetics.—Heredity; variation; Mendel's and Galton's Laws; dominance and segregation; gametic coupling and spurious allelomorphism; correlation; mutation theory; inheritance of acquired characters; prenatal influence; pure lines, selection, variability; modification of unit-factors. Practical application to breeding. Lectures; laboratory. *II*; (5).

Assistant Professor DETLEFSEN, Mr. ROBERTS

Prerequisite: Two years of university work, including ten hours in biology. Before registering in this course the approval of Dr. Detlefsen must be secured.

31. Principles of Animal Nutrition.—(Continuation of course 7.) Carbohydrate, fat, protein, and mineral metabolism. The income and expenditure of matter and energy. Protein, mineral, and energy requirements for maintenance, growth, and production. Lecture; recitations; laboratory. *I, II*; *(2-5).

Professor GRINDLEY, Mr. NEWLIN

Prerequisite: Animal Husbandry 7.

32. Marketing Live Stock.—Markets and methods of marketing live stock and their products. Advertising and sale of surplus pedigreed live stock. *II*; (2).

Professor MUMFORD and other members of the department

Prerequisite: Two years of university work. See note, page 270. (At least 4 credits in Animal Husbandry courses 1a, 2, 4a, and 11a.)

Courses for Graduates

Students entering graduate work in Animal Husbandry should have had a thoro training in the fundamental principles of the subject either in connection with or in addition to an agricultural course of study substantially equivalent to that offered in this University.

See courses 7, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, in undergraduate list, which are also open to graduate students.

103. Live Stock Experimentation.—Objects, methods, and the sources of error in experimental work dealing with the feeding, breeding and management of farm animals. Live stock experiments at this and other experiment stations. *I, II*; *Once a week*; ($\frac{1}{2}$ to $1\frac{1}{2}$ units).

Professor DAVENPORT

110. Animal Nutrition.—The most recent scientific publications relating to the chemistry and physiology of the nutrition of the lower animals. The chemical and physiological changes and processes involved in the activities of animal life. Lectures; conferences; assigned readings; *I, II*; *three times a week*; (*1 unit*).

Professor GRINDLEY, Dr. JOSEPH

111. Animal Nutrition.—Methods employed in the examination and analysis of feeding stuffs; also animal substances including flesh, fat, bone, urine, feces, and manufactured animal products. Lectures; conferences; assigned readings; laboratory; *I, II*; *Two to five times a week*; (*1 or 2 units*.)

Professor GRINDLEY

112. Investigation.—

- (a) Economic factors involved in the various phases of meat production.
- (b) Systems of live stock farming.
- (c) The valuation of pedigrees.

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

- (d) Animal Nutrition. A research course in Animal Nutrition including digestion and metabolism experiments and biochemical studies connected with the nutrition of farm animals.

- (e) Genetics. Research problems in heredity and variation.

(a), (b), and (c), *I, II; once a week; (1 to 2 units)*. Under the direction of Professor MUMFORD

(d), *I, II; daily; (1 to 2 units)*. Under the direction of Professor GRINDLEY, Dr. JOSEPH

(e), *I, II; Continuing throughout the summer; daily; (1 to 2 units)*. Under the direction of Assistant Professor DETLEFSEN

116. Seminar.—Subject for 1914-15: Food requirements for growth and the fattening of farm animals. *I, II; (1/4 unit)*. Members of the Staff

117. Genetics.—The more important genetic experiments; the biological and mathematical methods employed; the validity of the conclusions. Lectures; conferences; assigned readings; laboratory problems. *I, II; (1 to 2 units)*.

Assistant Professor DETLEFSEN

FARM MANAGEMENT

1. Elementary Farm Management.—The factors of production in the farm business; systems of farming, their distribution, and adaptation; farm organization; the distribution of capital invested; planning of the farm; administration or operation; planning of work; handling of labor; developing management efficiency. Lectures; quiz. *II; (3)*. Mr. HANDSCHIN

Prerequisite: Three semesters of required work; Economics 1 or 2.

It is also very important that the student have credit or be registered in Accountancy 11 and Agronomy 12.

ARCHITECTURE

LORING HARVEY PROVINE, B.S., A.E., *Professor*

NATHAN CLIFFORD RICKER, D.Arch., *Professor*

NEWTON ALONZO WELLS, M.P., *Professor, Architectural Decoration*

JAMES McLAREN WHITE, B.S., *Professor of Architectural Engineering and Supervising Architect*

PERCY ASH, B.S., C.E., *Assistant Professor, Architectural Design*

WILLIAM CALDWELL TITCOMB, A.B., B.S., *Assistant Professor*

CHARLES RICHARD CLARK, B.S., *Associate, Architectural Construction*

ROBERT TAYLOR JONES, B.S., *Instructor*

JOSEPH MITCHELL KELLOGG, M.Arch., *Instructor, Architectural Design*

SAMUEL CHATWOOD BURTON, *Instructor*

ANGELO BENEDETTO MARINO CORRUBIA, B.S., M.S., *Instructor*

WILLIAM SIDNEY WOLFE, B.S., M.S., *Instructor Architectural Engineering*

WILLIAM DEWEY FOSTER, B.S., M.S., *Instructor, Architectural Design*

RALPH STANLEY FANNING, B.S., *Instructor, Architectural Design*

RALPH EDWARD MUEHLMAN, *Assistant, Architectural Design*

WILLIAM MACEY STANTON, B.S., M.S., *Assistant*

WINIFRED FEHRENKAMP, B.L.S., *Librarian*

6a-6b. History of Architecture.—From the Egyptian period to modern times; effects of political, economic and local conditions; influence of materials,

climate, structural systems, the various countries and periods; evolution of architectural forms. Illustrated lectures; quizzes. (For architectural engineers.) *I, II; (4).*

Professor RICKER

Prerequisite: Sophomore standing in architecture or architectural engineering.

11a-11b. Seminar.—Assigned topics in History of Architecture; review of books; current technical journals and other publications. *I, II; (1).*

Professor RICKER

Prerequisite: Registration in Architecture 6a-6b.

13, 14, 15, 16. History of Architecture.—Approximately the same as Architecture 6a-6b. (For architects.) Sophomore *I, II; Junior I, II; (2).*

Professor RICKER

Prerequisite: Architecture 31, 32.

19a-19b. Architectural Engineering.—Graphic statics in the analysis of metallic roofs of wide span; roof trusses of curved or unusual form and those supported by abutments and jointed, spherical, and conical trussed domes; the stone arch, vault, and dome, and the Gothic system; strength of walls, dams, retaining walls, and chimneys; effect of moving loads on girders; steel skeleton buildings. Problems in design. Ricker's *Notes on Architectural Engineering*. *Nine hours drawing per week. I, II; (3).*

Professor PROVINE, Mr. CLARK

Prerequisite: Theoretical and Applied Mechanics 20, 25, 26; Architectural Engineering 44, 46.

23-24. Freehand Drawing.—Charcoal drawing from the cast. *Six hours drawing per week. I, II; (2).*

Mr. BURTON

Prerequisite: Architecture 32.

25-26. Freehand Drawing.—Charcoal, pen, pencil, and water color drawing from the cast and from still life. Out-of-door sketching. *Six hours drawing per week. I, II; (2).*

Professor WELLS, Mr. BURTON

Prerequisite: Architecture 23-24.

27-28. Freehand Drawing.—Water color; original decorative composition; out-of-door sketching. *Six hours drawing per week. I, II; (2).*

Professor WELLS, Mr. BURTON

Prerequisite: Architecture 25-26.

30a-30b. Advanced Architectural Engineering.—An extended problem in design or construction or an approved elective. *I, (1); II, (3).*

Professor PROVINE, Mr. CLARK

Prerequisite: Full senior standing.

31. Architectural and Freehand Drawing.—Instruments, pen, pencil, and brush; lettering; shades and shadows; perspective. Charcoal drawing from the cast. *One lecture and ten hours drawing per week. I; (4).*

Mr. MUEHLMAN, Mr. STANTON

Prerequisite: Registration in G. E. D. 2.

32. Architectural and Freehand Drawing.—Elements of architecture; walls, moldings, doors, windows, the Orders, vaults, roofs, stairs. Wash rendering, stereotomy, charcoal drawing from the cast. Lectures and sketching. *One lecture and ten hours of drawing per week. II; (4).*

Mr. MUEHLMAN, Mr. STANTON

Prerequisite: Architecture 31.

33, 34. Design.—(Elementary.) Rendered order and sketch problems involving simple composition; library research in elements of composition. *Nine hours drafting room per week. I, II; (3).*

Assistant Professor TITCOMB, Mr. KELLOGG, Mr. CORRUBIA, Mr. FOSTER

Prerequisite: Architecture 31, 32.

34a. Architectural Engineering Seminar.—Current literature; written reports and discussions. *I; (1).*

Professor PROVINCE

Prerequisite: Senior standing.

35-36. Design.—(Intermediate.) Rendered plan and sketch problems; library research in plan and interior elements. *Fifteen hours drafting room per week. I, II; (5).*

Assistant Professor TITCOMB, Mr. KELLOGG, Mr. CORRUBIA

Prerequisite: Architecture 33-34.

37. Design.—(Advanced.) Original design. *Twenty-one hours drafting room per week. I; (7).*

Assistant Professor ASH

Prerequisite: Architecture 35-36.

38. Advanced Design or Thesis.—An extended original problem in design or construction. *Twenty-one hours drafting room per week. II; (7).*

Assistant Professor ASH

Prerequisite: Architecture 37.

43. Working Drawings.—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties; detailing various parts on a large scale; floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, interior finish; preparation of working drawings. *Kidder's Building Construction, Part II. Two lectures and four hours drawing per week. I; (3).*

Mr. JONES, Mr. FANNING

Prerequisite: General Engineering Drawing 2; Architecture 31, 32.

44. Working Drawings.—Foundations of stone, brick, concrete, and piles; materials for stone masonry; their uses, defects, qualities, and preparation; kinds of masonry and external finish; tools for stone cutting; brick masonry, its materials and bonds; terra cotta design, manufacture, and use; columns, beams, girders, and footings; joints and connections. Working drawings. *Kidder's Building Construction and Superintendence. Part I. Two lectures and four hours drawing per week. II; (3).*

Mr. JONES, Mr. FANNING

Prerequisite: General Engineering Drawing 2; Architecture 31, 32, 43.

45. Graphic Statics.—Application in the analysis of trussed roofs, steel and masonry arches, domes. The graphical representation of reactions, bending moments, shear and deflection in beams. (For architects.) *Ricker's Notes on Graphic Statics. One lecture and six hours drawing per week. I; (3).*

Mr. CLARK, Mr. WOLFE

Prerequisite: Theoretical and Applied Mechanics 14, 15, 16.

46. Structures.—Wooden and steel roofs; determination of section of members; design of joints; mill and steel skeleton construction. *One lecture and six hours drawing per week. II; (3).*

Mr. CLARK, Mr. WOLFE

Prerequisite: Architecture 45.

55. Building Sanitation.—Plumbing, trap ventilation, removal of wastes; water closets; drains and systems of water supply; sewage disposal; water supply and fixtures in dwellings. (For architects.) *Cosgrove's Principles and Practise of Plumbing. Recitations; lectures; designs for special problems. I; (1).*

Mr. CLARK

Prerequisite: Physics 9a-9b, 10a-10b; Architecture 43, 44.

59. Domestic Architecture.—(Given in connection with Household Science 2.) Lectures; criticism.

Assistant Professor ASH, Mr. CLARK, Mr. KELLOGG, Mr. CORRUBIA

60. Special Lectures.—Estimating. (For architects.) *One lecture per week. II; (1).* Mr. CLARK

Prerequisite: Senior standing.

65-66. Theory of Architecture.—Influence of function on architectural form; plan and elevation; problem analysis. Lectures; research; exercises. *I, II; (1).* Assistant Professor TITCOMB

Prerequisite: Architecture 33, 34.

67. Theory of Form and Color.—Arrangements; rhythm and sequence; harmony and contrast; proportion and balance. Lectures; exercises. *I; (2).* Professor WELLS

Prerequisite: Architecture 25, 26, 35, 36.

68. Specifications.—General and special clauses and their arrangement; classifying material to facilitate writing specifications. Practise in writing several sets; relations of the architect, owner, and builder; office organization; building ordinances; professional ethics. *II; (3).*

Professor PROVINCE, Mr. CLARK

Prerequisite: First three years of the courses in Architecture or Architectural Engineering.

Courses for Graduates

Entrance upon graduate work in architecture presupposes the full undergraduate course in that subject. Semi-weekly conferences are held and additional instruction given in all courses as may be required.

101. Architectural Construction.—Design of special structures. *Arrange hours; I, II.* Professor RICKER, Professor PROVINCE

102. Sanitation of Buildings.—The planning of sanitation, warming, and ventilation. *Arrange hours; I, II.* Professor RICKER, Mr. CLARK

103. Advanced Architectural Graphics.—Graphic statics. Unusual types of footings, columns, trusses, etc. *Arrange hours; I or II.*

Professor RICKER, Professor PROVINCE

104. Architectural Design.—Advanced course. *Arrange hours; I or II.*

Assistant Professor ASH

105. Architectural Practise.—Contracts, specifications, and office methods; architectural jurisprudence. *Arrange hours; I or II.*

Professor RICKER, Professor PROVINCE

106. Advanced Architectural History.—Special research. *Arrange hours; I or II.* Professor RICKER

ARCHITECTURAL ENGINEERING

31. Architectural and Freehand Drawing.—Practise with instruments, pen, pencil, and brush; lettering; orders. Charcoal drawing from the cast. (For architectural engineers.) *One lecture and ten hours drawing per week. I; (4).* Mr. FANNING, Mr. STANTON

33. Architectural Drawing.—Elements of architecture; walls, mouldings, doors, windows, shades and shadows, perspective, vaults, roofs, stairs. Wash rendering, stereotomy, charcoal, drawing from the cast. Lectures and sketching. *Nine hours drawing per week. I; (3).*

Mr. FOSTER, Mr. KELLOGG, Mr. CORRUBIA

34. Design.—(Elementary.) Rendered order problems and sketch problems; library research. *Nine hours drawing per week. II; (3).*

Mr. FOSTER, Mr. KELLOGG, Mr. CORRUBIA

43. Working Drawings.—The growth, cutting, seasoning, working, and finishing of woods; structural and decorative properties; floors, walls, roofs, doors, windows, cornices, stairs, wainscoting, cabinet-work, interior finish; preparation of working drawings. (For architectural engineers.) *One recitation and three hours drawing per week. I; (2).*

Prerequisite: Architectural Engineering 31; General Engineering Drawing 2.

Mr. JONES, Mr. FANNING

44. Working Drawings.—Materials for stone masonry; their uses, defects, qualities, and preparation; kinds of masonry and external finish; tools for stone cutting; brick masonry; bonds; terra cotta design, manufacture, and use; columns, beams, girders; joints and connections. Preparation of working drawings. *One recitation and three hours of drawing per week. II; (2).*

Prerequisite: Architectural Engineering 31, 43; General Engineering Drawing 2.

Mr. JONES, Mr. FANNING

45. Graphic Statics.—Application in designing trussed roofs. Forces, equilibrium, reactions, moments, bending moments and shears on beams; center of gravity, moment of inertia, and kern of cross section. Stress diagrams of beams. *One recitation and six hours drawing per week. I; (3).*

Mr. CLARK, Mr. WOLFE

46. Graphic Statics.—A continuation of the first semester's work. Graphical representation of the reactions, bending moments, shear and deflection in beams. Design of wood and steel roofs; determination of section members; design of joints. *One lecture or recitation and six hours drawing per week. II; (3).*

Mr. CLARK, Mr. WOLFE

Prerequisite: Architectural Engineering 43, 44, 45; Theoretical and Applied Mechanics 25.

58. Fireproof Construction.—Continuation of first semester's work. Types of fireproof construction; complete working drawings; investigation as to economy and advantages. *Two recitations or lectures and four hours of drawing per week; II; (2).*

Prerequisite: Theoretical and Applied Mechanics 20, 25, 26; Architectural Engineering 45, 46, 47.

Professor PROVINCE

ART AND DESIGN

EDWARD JOHN LAKE, B. S., *Assistant Professor*

MARY MINERVA WETMORE, *Instructor*

CHARLES EARL BRADBURY, B.P., *Instructor*

SUMMER SESSION ONLY

MARY HILL, *Assistant*

1. Freehand Drawing.—Charcoal and pencil; perspective principles with application in free hand drawing; study of light, shadows, shade and reflections in monochrome; lectures and reference reading on graphical representation and the reproductive processes in printing. *I or II; (3).*

Mr. BRADBURY

2. Light and Shade.—Shaded drawings in monochrome in preparation for painting in oils and water colors. *II; (2).*

Mr. BRADBURY

Prerequisite: Art and Design 1.

3. Drawing from the Antique.—Practise drawing in monochrome from plaster models in preparation for painting the human figure; anatomical proportion, construction; composition and action in the representation of the human figure. *I or II; (3).*
Mr. BRADBURY

Prerequisite: Art and Design 1.

4a-4b. Water Color Painting.—Still-life; flowers, and landscape. *I, II; (3).*
Miss WETMORE

Prerequisite: Art and Design 1, 2.

5a-5b. Drawing from Life.—Application of the human figure to pictorial and decorative purposes. *I, II; (3).*
Miss WETMORE

Prerequisite: Art and Design 1, 3.

6a-6b. Portrait in Oil Colors.—Painting from costumed model; portrait and character study. *I, II; (3).*
Miss WETMORE

Prerequisite: Art and Design 1, 3, 5a-5b.

7a-7b. Still-Life in Oil Colors.—Still-life, flowers, and landscape, with application to pictorial and decorative art. *I, II; (3).*
Miss WETMORE

Prerequisite: Art and Design 1, 2.

8a-8b. Modeling.—Anatomical and decorative forms; the making of plaster molds and models; relative study of sculptural art. *I, II; (3).*

Assistant Professor LAKE

Prerequisite: Art and Design 1.

10. Sketching.—Pen, pencil; monochrome wash or charcoal rendering from landscape, still-life, and figure; requirements for reproduction. *II; (1).*

Mr. BRADBURY

Prerequisite: Art and Design 1.

11. Pictorial Design.—The composition and appreciation of pictures. Lectures with occasional reports. *II; (1).*
Assistant Professor LAKE

12. Design.—Theory and practise; the theory of pure design and the effect of material upon execution; the fitness of different forms of media for different sorts of design; space division and space relations; the theory of color; color schemes and exercises; conventionalization of natural forms for various functions; practise in execution. *I or II; (2).*
Assistant Professor LAKE

Prerequisite: Art and Design 1.

13. Design.—(Advanced.) The design of objects in the styles of different periods, and supplementing the theory of pure design with practical problems; lectures and reading on the development of historic ornament. This course is directed toward giving the student a larger vocabulary for expressing himself through design. *I or II; (3).*

Assistant Professor LAKE

Prerequisite: Art and Design 1, 12.

14. Design.—(Advanced practise.) Designs in a special field and in a medium selected by the student. *II; (3).*
Assistant Professor LAKE

Prerequisite: Art and Design 1, 12, 13.

19. History of the Fine Arts.—The periods and styles of architecture, sculpture, and painting before the Italian Renaissance. *I; (2).*

Assistant Professor LAKE

Prerequisite: One year of college work.

20. History of the Fine Arts.—The periods and styles of architecture, sculpture and painting during the Italian Renaissance and up to the present time. *II; (2).*

Assistant Professor LAKE

Prerequisite: One year of college work.

SUMMER SESSION COURSES

S 1. Elementary.—Form drawing from still-life, cast, and nature; outline and shading in pencil, charcoal and crayon; lectures on the principles of perspective. (2). Miss HILL

S 20. Art for the Common Schools.—The planning and execution of work in the several divisions of common-school art study; design; blackboard drawing. Lectures upon organization, equipment, and the administrative side of the supervisor's work. For supervisors of drawing and public school teachers. (2). Miss HILL

ASTRONOMY

JOEL STEBBINS, Ph.D., *Professor*

FRANK WALKER REED, Ph.D., *Instructor*

ALEXANDER FELIX SAMUELS, A.B., *Research Assistant*

Instruction in astronomy is arranged both for general students and for those who desire to take up the science from its technical side. Advanced students are given every opportunity to become familiar with the use of modern astronomical instruments. The equipment of the department is contained in the Astronomical Observatory. The principal instruments are a 12-inch refracting telescope by Warner and Swazey, and Brashear, a 30-inch short focus reflector by Brashear, and a 3-inch transit and zenith telescope. There are also two smaller equatorials, two Riefler clocks, and a considerable amount of minor apparatus such as chronometers, transits, sextants, spectroscopes, photometer, photographic outfit, and calculating machines. The astronomical library comprises about 1,500 volumes, and includes the important astronomical periodicals.

Students without mathematical training may elect course 1. Course 4 is for beginners, but requires a knowledge of trigonometry. Other courses should be taken in the order: 3, 6, 15, 14, 7, 8. Advanced students in mathematics, physics, or engineering are admitted to course 15 without previous work in astronomy.

Courses for Undergraduates

1. Elementary Astronomy.—Lectures; recitations; one evening a week at the observatory. (For beginners; mathematics not required.) I; (3).

Professor STEBBINS

3. General Astronomy for Engineers.—Descriptive astronomy; required with course 6. II; (3).

Professor STEBBINS

Prerequisite: Mathematics 7.

4. General Astronomy.—Lectures; recitations; two evenings a week at the observatory. II; (5).

Dr. REED

Prerequisite: Mathematics 4.

6. Practical Astronomy.—Rough and accurate determination of latitude, azimuth, and time, especially with the ordinary surveyor's transit; the art of computing. II; (2).

Professor STEBBINS

Prerequisite: Mathematics 7.

For Advanced Undergraduates and Graduates

7-8. Theoretical Astronomy.—Celestial mechanics; theory of orbits; perturbations; canonical transformations. I, II; (3).

Dr. REED

Prerequisite: Mathematics 9.

9-10. Celestial Mechanics.—Properties of canonical systems of differential equations; integration by series; periodic and asymptotic solutions; integral invariants. *I, II; (3).* Dr. REED

Prerequisite: Mathematics 16; Astronomy 7-8.

14. Observatory Astronomy.—The working methods of an astronomical observatory; individual problems. *II; (3).* Professor STEBBINS

Prerequisite: Astronomy 15.

15. Geodetic Astronomy.—The sextant, transit, and zenith telescope; methods similar to those of the United States Coast Survey. *I; (3).*

Professor STEBBINS

Prerequisite: Mathematics 7 or 8.

Courses for Graduates

101. Seminar and Thesis.—*Three times a week; I, II; (1 unit).*

Professor STEBBINS

102. Stellar Astronomy.—Orbits of binary stars; variable stars; theoretical photometry. *Three times a week; I, II; (1 unit).* Professor STEBBINS

BACTERIOLOGY

(See also BOTANY)

JOEL ANDREW SPERRY, 2D, Ph.D., *Instructor*

LAURENCE VREELAND BURTON, M.S., *Assistant*

JOSEPH CHARLES WINSLOW, B.S., *Graduate Assistant*

Courses for Undergraduates

5. Introductory Bacteriology.—Morphology and physiology of bacteria and related microorganisms; technique of cultivation and observation. *I or II; (5).* Dr. SPERRY, Mr. BURTON

Prerequisite: Chemistry 3; junior standing.

6. Bacteriology for Sanitary Engineers.—Methods of water analysis. *I; (2).* Dr. SPERRY

Courses for Advanced Undergraduates and Graduates

8. Applied Bacteriology.—Decay of organic matter in nature; soil and sewage bacteria; food bacteria; water bacteria; pathogenic bacteria and identification of organisms. *II; (5).* Mr. BURTON

Prerequisite: Bacteriology 5; Chemistry 9, or the equivalent.

18a-18b. Journal Meeting in Bacteriology.—Required of all students specializing in bacteriology. *I, II; (1).* Dr. SPERRY

Prerequisite: Bacteriology 5.

19. General Bacteriology.—For graduate students in science. *I or II; (1 unit).* Dr. SPERRY, Mr. BURTON

26. Pathological Bacteriology.—The disease-producing organisms; their effects upon the animal and the reaction of the host. Lectures and laboratory. *II; (3).* Dr. SPERRY

Prerequisite: Bacteriology 5; Physiology 1.

27. Epidemiology.—Transmission and the methods of prevention and control of infectious diseases. *I; (2).* Dr. SPERRY

Prerequisite: Bacteriology 5.

Courses for Graduates

The work here outlined is open only to graduate students who have had at least one year's work in bacteriology and satisfactory training in chemistry.

103. Physiology of Bacteria.—The facts and theories of fermentation and growth and death of bacteria. *I; (1 unit).* Dr. SPERRY

105. Classification of Bacteria.—Variability of species; characters; mutations; standard and biometrical classifications. *II; (1 unit).* Dr. SPERRY

107. Research in Bacteriology.—The physiology of bacteria and food bacteriology. *I, II; (1 or 2 units).* Dr. SPERRY

BANKING

(See ECONOMICS)

BIOLOGY

(See BOTANY, ENTOMOLOGY, PHYSIOLOGY, and ZOOLOGY)

BOTANY

WILLIAM TRELEASE, Sc.D., LL.D., *Professor*
 THOMAS JONATHAN BURRILL, Ph.D., LL.D., *Professor, Emeritus*
 CHARLES FREDERICK HOTTES, Ph.D., *Professor*
 FRANK LINCOLN STEVENS, Ph.D., *Professor*
 STELLA MARY HAGUE, Ph.D., *Instructor*
 WALTER BYRON McDUGALL, Ph.D., *Instructor*
 JOEL ANDREW SPERRY, 2D, Ph.D., *Instructor (Bacteriology)*
 ROSALIE MARY PARR, A.M., *Assistant*
 ERNEST MICHAEL RUDOLPH LAMKEY, A.M., *Assistant*
 LAWRENCE VREELAND BURTON, M.S., *Assistant (Bacteriology)*
 HARRY DWIGHT WAGGONER, A.M., *Assistant*
 NORA ELIZABETH DALBEY, A.M., *Assistant*
 FORREST ELLWOOD KEMPTON, M.S., *Assistant*
 BERT EDWIN QUICK, A.B., *Assistant*
 CYRUS WILLIAM LANTZ, A.M., *Assistant*
 JOSEPH CHARLES WINSLOW, B.S., *Graduate Assistant (Bacteriology)*
 WILLIAM EUGENE PICKLER, A.B., *Graduate Assistant*
 ROBERT LESLEY DAVIS, B.S., *Graduate Assistant*

Courses offered are of four types: the first intended to meet the needs of beginners; the second laying a foundation for methods of accuracy in observation, manipulation, and experimentation through the study of some fundamentally important subdivisions of the science; the third giving practise in methods of investigation by the study of advanced problems varied to suit the needs and interests of the student; and the fourth teaching independent research by means of thesis subjects leading to the discovery of new facts or laws.

The work of any semester may be credited separately except when a problem is left incomplete in one of the courses open to graduates.

For the convenience of undergraduates in the College of Liberal Arts and Sciences who elect major work in botany the following combinations of courses are suggested:—(a) General; 2a, 3b, 4a, 14; (b) Specializing in morphology; 2a, 2b, 3a, 4a, 4b, or 4c; (c) Specializing in pathology; 2a or 3a, 7a, 7b, 16, 4a, or 17; (d) Specializing in physiology; 2b, 3a, 3b, 9a, or 9b; (e) Specializing

in taxonomy; 2a, 4a or 4b or 4c, 14, 16 or 17. Students taking botany as a foundation for agronomy are advised to select courses 1, 3a, 3b, 4b, 7, and advanced work on some special topic or topics under courses 9, 15, or 17.

Candidates for the master's degree with botany as a major subject are expected to possess a general familiarity with the science as outlined in the collective courses offered primarily for undergraduates, in addition to doing more specialized graduate work.

Courses open for credit to graduates presuppose an earnest interest in the work and sufficient preliminary training to insure initiative and intelligence in its prosecution under direction or, in the more advanced research courses, with general guidance and stimulative supervision only. Each such course includes weekly seminar conferences as an integral part of its plan, and a collective monthly conference brings together all students enrolled in this entire group of electives. Those who take such courses are advised to register also for course 10, the weekly meeting devoted to current literature in botany, which is obligatory for candidates for an advanced degree with botany as a major subject.

Courses for Undergraduates

1. General Botany.—The structure, physiology, natural history and uses of plants; reading, quizzes, and laboratory work, adapted to the needs of students in the College of Liberal Arts and Sciences and the College of Agriculture. *When possible students are advised to precede it by elementary chemistry. I or II; (5).*

Professor TRELEASE, Dr. McDUGALL and assistants

2a. Morphology of Thallophytes.—Comparative study of types of the lower plants.

This and the following course are intended to give personal acquaintance with the vegetable kingdom through the study of living types selected so as to present in natural sequence the increasing complexity of structure and function which marks evolutionary development. *I; (5).*

Dr. HAGUE

Prerequisite: Botany 1.

2b. Morphology of Cormophytes.—A comparative laboratory study of selected types of the higher plants. *II; (5).*

Dr. HAGUE

Prerequisite: Botany 1.

3a. Plant Anatomy, Histology, and Technique.—Plant structure; protoplasts and their parts; behavior and relations of the nucleus; the best methods of fixing, sectioning, staining and examining tissues; modeling from serial sections and photomicrography. *I; (5).*

Professor HOTTES

Prerequisite: Botany 1.

3b. Plant Physiology.—A course preparatory to work in forestry and horticulture, crop judging, and other branches of agronomy. *II; (5).*

Professor HOTTES

Prerequisite: Botany 1.

4. The Local Flora.—Morphology, ecology, identification, and classification of wild plants. *I; (3).*

Dr. HAGUE

Prerequisite: Entrance botany or its equivalent, and sophomore standing.

4a. Taxonomy of Cormophytes.—Structure, identification and classification of higher plants.. Flowering plants, weeds, poisonous plants and the more commonly cultivated species. *II; (5).*

Professor TRELEASE

Prerequisite: Botany 1.

4b. Taxonomy of Algae and Bryophytes.—Structure, identification, and classification. *II*; (5). Dr. HAGUE

Prerequisite: Botany 1.

4c. Taxonomy of Fungi.—Structure, identification, and classification. *II*; (5). Professor STEVENS

Prerequisite: Botany 1.

4d. Trees and Shrubs of the Campus.—Woody plants used for decorative purposes. *I*; (3). Professor TRELEASE

7a-7b. Plant Pathology.—Casual agents, symptoms, morbid histology, diagnosis, and treatment, and methods of study. *I, II*; (5). Professor STEVENS

Prerequisite: Botany 1; and 7a for the second semester.

20. Plant Diseases.—(For credit in the College of Agriculture only.) The most conspicuous diseases of commonly cultivated plants; diagnosis and treatment. Lectures and laboratory. *I*; (3). Professor STEVENS

Prerequisite: Botany 1.

For Graduates and Advanced Undergraduates

9a-9b. Plant Anatomy or Physiology.—Problems in anatomy with technique, or physiology, or in the application of these to medicine, plant breeding, crop production, forestry, etc. *I, II*; *(3 or 5). Professor HOTTES

Prerequisite: 10 hours of botany, including course 3a or 3b, and junior standing.

14a-14b. Heredity, Variation, Evolution.—The cells and members of plants; their adaptations and changes; the mechanism of heredity, and of the process of evolution. *I, II*; (3). Professor HOTTES

Prerequisite: 10 hours of botany, or 5 hours each of botany and zoology, and junior standing, and 14a for the second semester.

15a-15b. Plant Pathology.—Study of the particular branch of pathology or group of pathogens in which student is interested, as follows: 1. Special groups of casual agents as: rusts, smuts, powdery mildew, air, soil, water condition, etc.; 2. Special host groups as: orchard crops, timber crops, truck crops, ornamental crops, etc.; 3. Enzymes and toxins; 4. Physiological diseases; 5. Resistance and susceptibility; immunity; 6. The host reaction. *I, II*; *(3 or 5). Professor STEVENS

Prerequisite: 10 hours of botany, including 7a, and junior standing.

16a-16b. Taxonomy and Ecology of Thallophytes.—Selected groups: (1), Algae and Bryophytes; (2) Fungi. *I, II*; *(3 or 5).

1, Dr. HAGUE; 2, Professor STEVENS

Prerequisite: 10 hours of botany, including either course 2a or 4b for Algae and Bryophytes, or 4c or 7a for Fungi, and junior standing.

17a-17b. Taxonomy and Ecology of Cormophytes.—Selected taxonomic, ecological or economic groups. Specialized studies, as of genera or families of Illinois plants, ecological association or adaptations, or plants economically important as weeds, forest resources, adjuncts to medicine, farm, orchard or garden crops, or as the basis of floriculture, landscape architecture, street shading or other decorative planting. *I, II*; *(3 or 5). Professor TRELEASE

Prerequisite: 10 hours of botany, including course 4 or 4a, and junior standing.

*In registering for a course with variable credit hours, a student must put down on the study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

10a-10b. Current Botanical Literature.—A weekly review covering the field of botany; supplementary to the various seminar conferences. *I, II; (1).*

Professors TRELEASE, HOTTES, STEVENS; Dr. HAGUE

Prerequisite: Concurrent taking of some course in botany open for graduate credit.

Courses for Graduates

The work here outlined is open only to those who have had satisfactory botanical training including at least one year of successful study in the particular line in which it is desired further to specialize. These courses may be elected for minor or for major work.

101. Cytology.—The influence of external agents on the cell. Special subjects for investigation are assigned upon consultation. Reports and discussions of current literature and research results. *I, II; (1 or 2 units).*

Professor HOTTES

102. Physiology.—The effects of external stimuli on growth and movement. Special subjects for investigation are assigned upon consultation. Reports and discussions of current literature and research results. *I, II; (1 or 2 units).*

Professor HOTTES

104. Mycology.—Field and laboratory investigations upon selected groups of fungi. Individual assignments of subjects and problems. *I, II; (1 or 2 units).*

Professor STEVENS

106. Plant Pathology.—Diseases and disease agents. Special subjects are assigned upon consultation. *I, II; (1 or 2 units).*

Professor STEVENS

108. Taxonomy.—Monographic studies of critical groups. *I, II; (1 or 2 units).*

Professor TRELEASE

SUMMER SESSION COURSES

S 2. Flowerless Plants.—Field and laboratory study of the morphology, classification and ecological relations of selected types. ($2\frac{1}{2}$). Dr. HAGUE

Prerequisite: Entrance botany or Botany 1 or 11.

S 4. Flowering Plants.—Morphology, organography, naming, classification and ecology of local field flora.

Professor TRELEASE

Prerequisite: Entrance botany or Botany 1 or 11.

***S 16. Lower Plants.**—Field, laboratory and herbarium work and assigned reading, on special groups. (Time and credit arranged.) Dr. HAGUE

Prerequisite: Ten hours of botany and junior standing.

***S 17. Higher Plants.**—Special morphology, vegetative ecology, pollination and seed dispersal, with thesis. Field work and assigned reading.

Professor TRELEASE

Prerequisite: Ten hours of botany and junior standing.

CERAMICS

RAY THOMAS STULL, E.M., *Acting Director*

RALPH KENT HURSH, B.S., *Instructor*

BARNEY S. RADCLIFFE, M.S., *Instructor*

ARTHUR EDWARDS WILLIAMS, B.S., *Instructor*

RALPH RAYMOND DANIELSON, B.S., *Assistant*

The courses offered by the department of ceramics are designed to give a technical knowledge of the composition and properties of materials used in the

manufacture of clay wares, cements, enamels, and glasses, and of the physical and chemical changes which they undergo during manufacture; and to acquaint the student with machinery, application of power, and the construction and operation of plants. Advanced students are permitted to take part in these investigations carried on under direction of the instructors. Seniors and graduate students are expected to conduct investigations of their own in some line of work in which they are especially interested.

1. Ceramic Materials.—The properties of clays and other ceramic materials; the identification of the varieties met in practical work. Lectures; laboratory. *II*; (3). Mr. HURSH, Mr. WILLIAMS

Prerequisite: Chemistry 2, 3.

2. Winning and Preparation of Clays.—Methods, machinery, and costs. *I*; (3). Mr. RADCLIFFE

Prerequisite: Chemistry 5b.

3. Industrial Calculations.—Chemical and physical calculations applying to the operation of furnaces, kilns, and dryers; temperature measurements; ceramic stoichiometry. *I*; (3). Mr. HURSH, Mr. WILLIAMS

Prerequisite: Mathematics 8; Chemistry 5b; Physics 1a-1b and 3a-3b.

4. Drying and Burning.—Clay wares; types of construction of industrial dryers and kiln plants; chemical and physical processes involved. *I*; (4). Mr. STULL

Prerequisite: Ceramics 1, 3.

5. Ceramic Bodies.—Composition; physical and chemical changes produced by the blending of various clays with other ceramic materials; methods of shading. Lectures; laboratory. *II*; (5). Mr. RADCLIFFE

Prerequisite: Ceramics 1 and 3.

6. Glazes.—Production of glazes and enamels; limits of composition; classification; properties and defects common to each class; effect of variation in composition; modes of application. Lectures; laboratory. *I*; (5). Mr. STULL

Prerequisite: Ceramics 3, 5; registration in Ceramics 4.

8. Glass.—Raw materials, preparation, compounding, melting, and shaping; chemical principles involved in the manufacture and decoration of the various types of vitreous silicates. Lectures. *II*; (2). Mr. STULL

Prerequisite: Ceramics 3, 6.

9. Ceramic Construction.—Plans, specifications, and estimates for ceramic equipments and industrial plants. *II*; (4). Mr. STULL, Mr. HURSH

Prerequisite: G. E. D. 2; Ceramics 3, 4.

10. Cements.—Cements, limes, plasters; composition; reactions; methods of manufacture and testing. *I*; (3). Mr. HURSH

Prerequisite: Ceramics 3.

11. Thesis.—*II*; (5).

Mr. STULL, Mr. HURSH

12. Designing and Shaping.—The standpoint of the manufacturer; die construction; templates; master and working molds for pressing, casting, and jiggering. *II*; (3). Mr. RADCLIFFE

Prerequisite: Ceramics 1.

13. Cement Laboratory.—Preparation of cementing substances, study of properties and reactions involved. *II*; (3). Mr. HURSH

Prerequisite: Ceramics 10.

15. Glass Laboratory.—Soda-lime, potash-lime, lead, barium, and zinc silicates; boro-silicates; properties of fused and solidified glasses; practical glass problems. *I*; (3). Mr. STULL

Prerequisite: Ceramics 8.

16. Glasses and Enamels.—Continuation of Ceramics 15. Opaque, colored, and optical glasses; enameling of metals. *II*; (3). Mr. STULL

Prerequisite: Ceramics 15.

17. Silicates.—Formation and properties; experimental methods. *II*; (3).

Mr. HURSH

Prerequisite: Ceramics 1, 3.

CHEMISTRY

WILLIAM ALBERT NOYES, Ph.D., LL.D., *Professor and Director*

SAMUEL WILSON PARR, M.S., *Professor*

HARRY SANDS GRINDLEY, D.Sc., *Professor*

EDWARD BARTOW, Ph.D., *Professor*

CLARENCE WILLIAM BALKE, Ph.D., *Professor*

EDWARD WIGHT WASHBURN, Ph.D., *Professor*

DAVID FORD MCFARLAND, Ph.D., *Assistant Professor*

GEORGE MCPHAIL SMITH, Ph.D., *Assistant Professor*

CLARENCE GEORGE DERICK, Ph.D., *Assistant Professor*

HENRY CHARLES PAUL WEBER, Ph.D., *Assistant Professor*

DUNCAN ARTHUR MACINNES, Ph.D., *Associate*

GEORGE DENTON BEAL, Ph.D., *Associate*

B SMITH HOPKINS, Ph.D., *Associate*

LAMBERT THORP, Ph.D., *Instructor*

CHARLES GEORGE MACARTHUR, A.M., *Instructor*

HENRY JOHN BRODERSON, Ph.D., *Instructor*

CHARLES HENRY HECKER, Ph.D., *Instructor*

GEORGE WALLACE SEARS, Ph.D., *Instructor*

HUBERT LEONARD OLIN, Ph.D., *Instructor*

EDWARD OTTO HEUSE, Ph.D., *Instructor*

JESSIE YEOREANCE CANN, Ph.D., *Instructor*

BRONISLAV ROMAN HONOVSKI, Ph.D., *Research Assistant*

HENRY JOSEPH WEILAND, B.S., *Research Assistant*

HARRY PEACH CORSON, M.S., *Assistant*

OLIVER KAMM, M.S., *Assistant*

BERT STOVER DAVISSON, A.B., *Assistant*

EDGAR WALLACE ENGLE, M.S., *Assistant*

JOHN WILLIAM READ, M.S., *Assistant*

ERNEST ATKINS WILDMAN, M.S., *Assistant*

RAYMOND WASHINGTON HESS, A.B., *Assistant*

SCOTT CHAMPLIN TAYLOR, B.S., *Assistant*

EDWARD WICHERS, A.B., *Assistant*

THEODORE RALLY BALL, M.S., *Assistant*

HOWARD DEWITT VALENTINE, B.S., *Assistant*

HARRY CLEVELAND KREMERS, A.B., *Assistant*
 ROSS EARLBY GILMORE, A.B., *Research Assistant*
 JUANITA ELIZABETH DARRAH, A.B., *Assistant*
 WILLIAM ASBURY MANUEL, A.B., *Assistant*
 ERNEST EDWARD CHARLTON, A.B., *Assistant*
 EDWIN ARTHUR REES, A.M., *Assistant*
 PAUL ANDERS, *Assistant, Glass Blowing*
 STEWARD DENT MARQUIS, A.B., *Graduate Assistant*
 EVERETT HARVEY TAYLOR, A.B., *Graduate Assistant*
 RALPH WALDO TIPPET, A.B., *Graduate Assistant*
 HENRY LESTER GERRY, A.M., *Graduate Assistant*
 GLENN SEYMOUR SKINNER, A.B., *Graduate Assistant*
 SILAS ALONZO BRALEY, A.B., *Graduate Assistant*
 JAY THOMAS FORD, A.B., *Graduate Assistant*
 AXEL MAGNUS HJORT, A.B., *Graduate Assistant*
 TERRENCE ONAS WESTHAEFER, A.B., *Graduate Assistant*
 ALBERT DURAND SHEPARD, B.S., *Graduate Assistant*
 REUBEN WINFIELD ALLEN, M.S., *Graduate Assistant*
 CARL NATHAN DAVIDSON, A.B., *Graduate Assistant*
 DON WARREN BISSELL, B.S., *Graduate Assistant*
 PAUL MARSHALL DEAN, A.M., *Graduate Assistant*
 CLARENCE BARBERE, B.S., *Graduate Assistant*
 JAMES BURLEIGH LUCAS, M.S., *Graduate Assistant*
 HENRY RHODES LEE, A.B., *Graduate Assistant*
 ERNEST HENRY VOLLWEILER, A.B., *Graduate Assistant*
 WALTER GERALD KARR, B.S., *Graduate Assistant*

Students taking chemistry at the University are advised to give at least one year to the subject, and this should include Chemistry 1 or 1a, 2, and 3. Those continuing in the second year should take Chemistry 5a and 5b, 5c or 13a. In the third year Chemistry 14 or 9, 9a, and 9b, or 9c, 31, and 33, should be taken. With these, more special courses may be taken if desired, but, in general, students are not advised to take the special courses unless they have had the fundamental work represented by the selection given above. Students who desire a training for professional work in chemistry, either as teachers or in its industrial application, will naturally take the chemical course or the course in chemical engineering.

Students who find it impossible to take more than one semester's work are requested to register for Chemistry 1 or 1a in the second semester rather than in the first.

A major in chemistry shall consist of twenty hours in chemistry, exclusive of the first semester's work, and shall include courses in quantitative analysis and organic chemistry.

Students who major in chemistry may offer a minor made up of approved courses from the following departments: Botany, Ceramics, Geology, Household Science, Mathematics, Physics, Physiology, Zoology.

1. Inorganic Chemistry.—The non-metallic elements. Noyes's *Text-book of Chemistry*. I or II; (5).
 Professor BALKE in charge

1a. Inorganic Chemistry.—Lectures; recitations; laboratory. *I or II*; (4).

Professor BALKE in charge

Prerequisite: One year of entrance chemistry.

1b. Inorganic Chemistry.—Lectures; recitations; laboratory. (For students in engineering.) *I or II*; (4).

Professor BALKE in charge

2. Inorganic Chemistry.—A continuation of Chemistry 1. The metallic elements; their classification, compounds, and chemical properties. Lectures; assigned text. Noyes's *Textbook of Chemistry*. *I or II*; (2).

Professor BALKE in charge

Prerequisite: Chemistry 1; registration in Chemistry 3.

3. Qualitative Analysis.—Recitations; laboratory. *I or II*; (3).

Assistant Professor WEBER in charge

Prerequisite: Chemistry 1; registration in Chemistry 2.

4. Qualitative Analysis and Chemistry of the Metallic Elements.—Class and laboratory work. (For students in engineering.) *I*; (4).

Assistant Professor WEBER in charge

Prerequisite: Chemistry 1a or 1b.

5a. Elementary Quantitative Analysis.—Gravimetric and volumetric analysis; stoichiometrical relations and the application of the fundamental laws of chemistry to quantitative analysis. Lectures; recitations; laboratory. Talbot's *Quantitative Chemical Analysis*. *I, II*; (5).

Assistant Professor SMITH, Dr. BEAL, Dr. OLIN

Prerequisite: Chemistry 2, 3.

5b. Quantitative Analysis.—Continuation of 5a. The analysis of silicates, metallic compounds, and alloys; advanced qualitative analysis. Lectures; recitations; laboratory. Treadwell-Hall, *Analytical Chemistry*, Vol. II. *II*; (5).

Assistant Professor SMITH, Dr. OLIN

Prerequisite: Chemistry 5a.

5c. Food Analysis.—Quantitative organic analysis, with special reference to the examination of food and drug products; alcohols, carbohydrates, fats and oils, nitrogenous bodies, preservatives and colors. The origin and composition of food materials. Sherman's *Organic Analysis: Bulletin 107 (rev.) U. S. Bureau of Chemistry*; Sherman's *Food Products*. *II*; (3 to 5).

Dr. BEAL

Prerequisite: Chemistry 5a or 13a; 9 or 14a-14b.

5d. Elementary Quantitative Analysis for Mining Engineers.—Gravimetric and volumetric analysis; stoichiometrical relations and the application of the fundamental laws of chemistry to quantitative analysis. Lectures; recitations; laboratory. Talbot's *Quantitative Chemical Analysis*. *I*; (4).

Assistant Professor SMITH, Dr. OLIN

Prerequisite: Chemistry 2, 3; or chemistry 4.

6*. Chemical Technology.—Technological chemistry as illustrated in those industries having a chemical basis for their principal operations and processes; trade journals. Lectures; recitations. Rogers and Aubert's *Industrial Chemistry*. *II*; (2).

Assistant Professor McFARLAND

Prerequisite: Chemistry 5a and 14a-14b.

*Certain required inspection trips will be arranged in connection with courses 6 and 7. Students registered in these courses should take into consideration the expense involved, which will approximate \$15.00 for each course.

7*. Metallurgy.—General metallurgy; iron and steel; the non-ferrous metals. Lectures; assigned reading; recitations. Fulton's *Principles of Metallurgy*; Stoughton's *Iron and Steel*. I; (3). Assistant Professor McFARLAND

Prerequisite: Chemistry 5a.

Senior students in engineering courses may be admitted without this prerequisite by special arrangement.

[8. Iron and Steel Analysis.—Analyses of all the constituents by both rapid, or technical, and standard methods. II; (3).

Not given 1915-16.

Assistant Professor SMITH

Prerequisite: Chemistry 5b.]

9. Organic Chemistry.—The characteristics of the more typical and simple organic compounds; the important classes of derivatives of carbon. (For students of the medical preparatory and household science courses and others desiring a short course.) II; (3).

Assistant Professor DERICK

Prerequisite: Chemistry 3.

9a. Organic Synthesis and Ultimate Analysis.—Ultimate organic analysis; preparation of typical organic compounds. Laboratory. I or II; (2).

Assistant Professor DERICK in charge

Prerequisite: Registration in chemistry 14a-14b, or equivalent.

9b. Organic Synthesis and Qualitative Organic Analysis.—Continuation of 9a, to accompany Chemistry 14b. I or II; (2).

Assistant Professor DERICK in charge

Prerequisite: Chemistry 9a; registration in Chemistry 14b, or equivalent.

9c. Organic Synthesis.—Typical organic compounds. Laboratory. (For students in the medical preparatory and household science courses and others desiring a brief course.) II; (2).

Assistant Professor DERICK in charge

Prerequisite: Chemistry 3; registration in Chemistry 9, or equivalent.

10a. Water Chemistry.—The history, sources, contamination, and standards of purity of potable waters and waters for industrial purposes. Lectures; practise in analytical methods. II; (3).

Professor BARTOW, Mr. CORSON

10b. (A modification of 10a to meet the requirements of students in sanitary engineering, registered in connection with Chemistry 2 and 3.) II; (2½).

Professor BARTOW, Mr. CORSON

11a-11b. Research.—Thesis embodying a thoro review of the literature of the subject; account of work done in the laboratory. The subject should be determined upon and reading begun in the junior year. A minimum of five semester hours is required. (Required for seniors.) I, II; (5).

Professor NOYES in charge

13a. Elementary Quantitative Analysis.—Gravimetric and volumetric analysis, including fertilizer and milk analysis. Lectures; recitations; laboratory. Talbot's *Quantitative Chemical Analysis*. (For students in agriculture, medicine, and household science.) I, II; (5).

Assistant Professor SMITH, Dr. BEAL, Dr. OLIN

Prerequisite: Chemistry 2, 3.

*Certain required inspection trips will be arranged in connection with courses 6 and 7. Students registered in these courses should take into consideration the expense involved, which will approximate \$15.00 for each course.

13b. Advanced Agricultural Analysis.—Applied quantitative analysis.

The analysis of fungicides, limestone, phosphate rock, fuel, and water; determination of the alkali metals; special methods of agricultural analysis. Treadwell-Hall, *Analytical Chemistry*, Vol. II. (For students who wish to specialize in agricultural chemistry or agricultural experiments.) *II*; (5).

Dr. BEAL in charge

Prerequisite: Chemistry 5a or 13a.

14a-14b. Organic Chemistry.—Lectures; recitations. Noyes's *Organic Chemistry*. *I, II*; (3).

Professor NOYES

Prerequisite: Chemistry 5a; should be accompanied by Chemistry 9a and 9b. (Students who have taken Chemistry 9 can not take Chemistry 14a for credit, but may receive credit for 14b.)

15. Physiological Chemistry.—Enzymes; carbohydrates; salivary digestion; gastric digestion; fats; pancreatic-digestion; intestinal digestion; bile; putrefaction products; feces; blood; milk; epithelial and connective tissues; muscular tissue; nervous tissue; urine. Qualitative and quantitative work on gastric juice, blood, urine, and milk; the clinical aspects of these topics treated thoroughly for prospective students of medicine. Lectures; demonstrations; conferences; practical work; assigned reading. Hammarsten's *Text Book of Physiological Chemistry*; Hawk's *Practical Physiological Chemistry*. (Open to graduates and undergraduates.) *I*; *(5 or 7).

Mr. MACARTHUR

Prerequisite: Two years' work in chemistry.

15a.—Problems of Metabolism.—Colloids; animal oxidations; osmosis; adsorption; selective activity of cells; metabolism; activities of gastro-intestinal tract; enzymes; inorganic nutrition. Lectures; demonstrations; conferences. *I*; (2).

Mr. MACARTHUR

Prerequisite: Chemistry 15.

16. Chemistry for Engineers.—The proximate analysis of coal; determination of calorific power; technical analysis of furnace gases; examination of boiler waters; lubricating oils. *II*; (3).

Professor PARR, Dr. BRODERSON

Prerequisite: Chemistry 1.

17. Teachers' Course.—Methods of teaching elementary chemistry. (1).

Professor BALKE

21. Qualitative Organic Analysis.—Systematic methods for identification of pure organic compounds and mixtures. *I* or *II*; (2).

Assistant Professor DERICK

Prerequisite: Chemistry 9a, 9b.

22. Animal Chemistry (Animal Nutrition).—The chemical composition of animal products and feeding stuffs. Lectures; conferences; assigned reading; laboratory. *I* or *II*; (5).

Professor GRINDLEY

Prerequisite: Two years' work in chemistry.

27. Qualitative Analysis of the Rare Elements.—Identification and separation; formation, solubilities, and chemical reactions of their salts. Assigned reading; laboratory. *II*; (3).

Professor BALKE

Prerequisite: Two years' work in chemistry.

*In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

31. Elementary Physical Chemistry.—Important principles of physical chemistry and electro-chemistry; problems. Lectures; recitations. Washburn's *Principles of Physical Chemistry*. II; (3). Professor WASHBURN

Prerequisite: Chemistry 1, 2, 3; Physics 1a-1b or 7a-7b; Mathematics 8.

33. Elementary Physical Chemistry.—Molecular weight of gases and solutions; chemical equilibrium; the electrical conductivity of solutions and the attendant phenomena within the solution; thermochemistry. (Laboratory to accompany course 31.) II; (2). Dr. MACINNES, Dr. HEUSE

Prerequisite: Chemistry 5a; Physics 8a-8b or 3a-3b.

35. Electrochemistry.—(A continuation of Chemistry 31. See also Chemistry 102b.) Theory and applications. Lectures, recitations, laboratory. Allmand's *Applied Electrochemistry*. I; (3). Dr. MACINNES

Prerequisite: Chemistry 31, 33.

36. The Phase Rule and Its Applications.—A study of equilibria in heterogeneous systems. Lectures and seminar. II; (2). Dr. HECKER

Prerequisite: Chemistry 31, 33; Mathematics 8 or 7 and 9.

61. Industrial Chemical Laboratory.—The preparation and purification of chemical products from raw materials on a scale sufficient to afford data for determining the economy of the processes employed. Typical forms of chemical machinery such as filter presses, vacuum pan, centrifugal separators, steam-jacketed kettles, etc.; reports and estimates upon apparatus and plant for the production of some particular product on a commercial scale. (Should be accompanied by either Chemistry 6 or 109.) II; (2).

Assistant Professor MCFARLAND

Prerequisite: Chemistry 5a and 14a-14b.

65. Technical Gas and Fuel Analysis.—Examination of gases, gas mixtures, flue gases, and fuels; determination of calorific values; calculation of efficiencies. I; (2). Professor PARR, Dr. BRODERSON

Prerequisite: Chemistry 5a.

66. Technology of Gases.—The manufacture, constituents, and uses of the various forms of gaseous fuel; calorimetry; photometry; the more exact methods of analysis. Lectures; reading; reports; laboratory. II; (1).

Dr. BRODERSON

Prerequisite: Chemistry 65.

69. Metallurgical Laboratory and Assaying.—The fire assay of gold, silver, lead, and copper ores, mattes, and bullion; the underlying metallurgical principles; fluxes, slags, and charge calculations; practise in the use of coal, oil, and gas furnaces, and in the measurement of high temperatures. Fulton's *Manual of Fire Assaying*. I; (2). Assistant Professor MCFARLAND

Prerequisite: Chemistry 5a; Geology 5.

70. Advanced Assaying and Ore Testing.—Platinum, tin, copper; bullion assay; free milling, amalgamation, and cyaniding tests. (A continuation of Chemistry 69.) II; (2). Assistant Professor MCFARLAND

Prerequisite: Chemistry 69.

71. Advanced Methods of Metallurgical Analysis.—Comparison of methods of analysis of ores, alloys, and metallurgical products. Laboratory. I; (2). Assistant Professor MCFARLAND

Prerequisite: Chemistry 5b.

72. Paints, Oils, Turpentine, Varnishes, and Protective Coverings for Wood and Metals.—Lectures and laboratory. *I* or *II*; *(2 or 3).

Professor PARR

Prerequisite: Chemistry 5a and 14a-14b.

73. Asphalt, Tar, and Oil Residues.—Sources, characteristics, composition, and examination; binders and dust preventatives used in road construction. (For students in highway engineering.) *II*; (2).

Professor PARR

Prerequisite: Chemistry 3 or 4.

76. Calorimetry of Fuels.—Methods of fuel inspection. (An advanced course.) *I* or *II*; *(1-3).

Professor PARR, Dr. BRODERSON

77. Composition and Classification of Coal.—Classification, changes in composition, weathering, spontaneous combustion, formation of mine gases. Lectures; assigned reading. *II*; (1).

Professor PARR

78. Metallography.—Constitution and microstructure of metals and alloys and the relations between their properties, chemical and mechanical treatment, and structures. Lectures; reading and laboratory. *II*; (2).

Assistant Professor McFARLAND

80. The Elements of Glass Blowing.—The construction and repair of glass apparatus; laboratory. *II*; (1).

Mr. ANDERS

92a-92b, 93a-93b. Journal Meeting.—(For juniors, seniors, and graduates.) *I, II*; (1). All members of the teaching staff in the chemical department.

Courses for Graduates

Graduate students whose major subject is in some department other than chemistry, before taking graduate work for credit in this department, must have had the equivalent of 15 university credits in chemistry, and the work covered must have included satisfactory work in general chemistry and in qualitative and quantitative analysis. Such students are advised to take Chemistry 31, 33 (or 102, 102a), 5b, 5c, 14, 9a and 9b. Courses of a more special nature will not, as a rule, be accepted for graduate work unless preceded by one of the above courses.

For students in agriculture, Chemistry 5a and 13a will not be accepted for graduate credit.

Graduate students who are candidates for an advanced degree in chemistry must have the equivalent of 30 university credits in chemistry, including satisfactory courses in general chemistry, qualitative and quantitative analysis, physical and organic chemistry. They should have had courses in mathematics, including analytical geometry, and, if possible, the calculus. Before receiving the degree of Doctor of Philosophy such students are expected to complete work equivalent to courses 31, 33 (or 102 and 102a), 14, 9a, 9b, 101, and 111. They are advised to take at least brief courses in gas analysis, iron and steel analysis, water analysis, assaying, and chemical technology.

For students in chemistry, 5a, 13a, 9, and 9c will not be accepted for graduate credit and 9a, 9b, 14, 31 and 33 will be accepted only from students entering the Graduate School with the equivalent of 30 university credits in chemistry.

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

101. History of Chemistry.—Lectures, Pattison Muir's *History of Chemical Theories and Laws*, and assigned reading. *Twice a week; I; ($\frac{1}{2}$ unit).*

Assistant Professor SMITH

102. Advanced Physical Chemistry.—This course with 102a, covers a period of two years. The subject is treated from the standpoint of Avogadro's Principle and Thermodynamics. The primary purpose is to develop power to handle successfully a physico-chemical problem rather than merely to impart a knowledge of the phenomena and the principles involved. Lectures and Seminar. Nernst's *Theoretische Chemie*, 7th edition. *Twice a week; I, II; ($\frac{3}{4}$ unit).*

Professor WASHBURN

Prerequisite: Chemistry 1, 2; Physics 1, 3; Mathematics 8a or 7 and 9. An elementary knowledge of organic and physical chemistry is desirable.

[102a. Advanced Physical Chemistry.—Chemical equilibrium; the Phase Rule; thermochemistry; photochemistry. (A continuation of 102, with which it alternates.) Nernst's *Theoretische Chemie*. *Twice a week; I, II; ($\frac{3}{4}$ unit).* Not given 1915-16.

Professor WASHBURN

Prerequisite: The same as course 102.]

102b. Advanced Electrochemistry.—The modern theories of solution and the principles of thermodynamics in their application to the problems of electrochemistry; electrolytic conductivity and transference; electro-motive force and the energy principles underlying the transformation of chemical and electrical energy. LeBlanc's *Electrochemistry*. *Three times a week; II; (1 unit).*

Dr. MACINNES

Prerequisite: Chemistry 102; Mathematics 8a or 7 and 9.

102c. Advanced Physical and Electrochemistry.—The applications of physico-chemical methods to special problems. Laboratory. *Twice a week; I; ($\frac{1}{2}$ to 1 unit).*

Professor WASHBURN

Prerequisite: Chemistry 31, 33; registration in Chemistry 102b, or completion of Chemistry 102, 102a, or 102b; Mathematics 8a or 7 and 9.

102d. Electrochemistry.—Theoretical and applied electrochemistry, with emphasis on the technical side of the subject. (For students in electrical engineering.) *Once a week; I; ($\frac{1}{2}$ unit).*

Dr. MACINNES

102e. Special Topics in Physical Chemistry.—Subject for 1914-15. Photochemistry. *Once a week; I; ($\frac{1}{2}$ unit).*

Professor WASHBURN

Prerequisite: Chemistry 102 or 102a.

103. Advanced Inorganic Chemistry.—The rarer elements; the periodic system. Lectures, with or without laboratory. *Two to five times a week; I, II; ($\frac{1}{2}$ to $1\frac{1}{4}$ units).*

Professor BALKE

103a. Advanced Analytical Chemistry.—Special topics. Lectures, with or without laboratory. *One to five times a week; II; ($\frac{1}{2}$ to $1\frac{1}{4}$ units).*

Assistant Professor SMITH

Prerequisite: Chemistry 5b, 9a, 9b, 14, 31, 33.

103b. Special Topics in Inorganic Chemistry.—Subject for 1915-1916: The Chemistry of the Higher Order Compounds. Werner, *Neuere Anschauungen auf dem Gebiete der Anorganischen Chemie*; assigned reading from later publications. Lectures and seminar. *Twice a week; I; ($\frac{3}{4}$ unit).*

Assistant Professor SMITH

Prerequisite: Chemistry 9a, 9b, 14.

103c. Special Topics in Inorganic Chemistry.—Seminar. Subject for 1914-15: The Determination of Atomic Weights. *Twice a week; II; ($\frac{3}{4}$ unit).*
Professor BALKE

103d. Advanced Qualitative Analysis.—Methods of separation; qualitative reagents; reactions of some of the less common elements. Designed especially for those intending to teach qualitative chemistry. Lectures, with or without laboratory. *One to three times a week; I; ($\frac{1}{2}$ to 1 unit).*

Assistant Professor WEBER

104. Advanced Organic Chemistry.—This course alternates with 104a; each covering a period of one year. A systematic treatment of organic chemistry is given from the standpoint of the atomic linking theory, stereochemistry, chemical kinetics, mass action, and the Phase Rule. Typical laboratory experiments illustrating these principles are given from the investigational standpoint. Lectures; discussions; laboratory. Cohen's *Organic Chemistry for Advanced Students*, Volumes I and II. *Three times a week; I, II; ($\frac{3}{4}$ unit).*

Assistant Professor DERICK

Prerequisite: Chemistry 14a, 9a, 31, 33 (102-102c). An elementary knowledge of crystallography is desirable.

[104a. Advanced Organic Chemistry.—(Continuation of 104, with which it alternates). Lectures; discussions; laboratory. *Three times a week; I, II; ($\frac{3}{4}$ unit).*

Assistant Professor DERICK

Prerequisite: Chemistry 104. Given 1915-16.]

104b. Advanced Quantitative Organic Analysis.—The quantitative chemistry of the proteins, alkaloids, glucosides, volatile oils, and other constituents of animal and vegetable tissues. Plant analysis. Toxicological analysis. Concludes with a study of the general methods, chemical and physical, of organic analysis. Lectures and seminar. May be accompanied by laboratory work on a selected group of compounds. *Twice a week; I, II; ($\frac{3}{4}$ unit).*

Dr. BEAL

104c. Special Topics in Organic Chemistry.—Seminar. Subject 1914-15: *Theorien der Organischen Chemie*, Henrich, 1912 edition. *Once a week; II; ($\frac{1}{4}$ unit).*

Assistant Professor DERICK

105. Chemistry of Plants.—Carbohydrates, glucosides, fats, lipines, proteins, inorganic salts, alkaloids, tannins, pigments, enzymes, oxygen and carbon dioxide. Emphasis will be placed on plant processes and their physiological significance. Conferences and discussions. *II; ($1\frac{1}{4}$ unit).*

Mr. MACARTHUR

Prerequisite: Chemistry 9 or 14.

105a. Advanced Physiological Chemistry.—Special investigations. Laboratory. *One to five times a week; II; ($\frac{3}{4}$ unit).*

Mr. MACARTHUR

105b. Advanced Physiological Chemistry.—The biological importance of diffusion, solutions, chemical equilibrium, adsorption, colloids, osmosis, permeability, and enzymes. Recent contributions are emphasized. *Twice a week; I or II; ($\frac{3}{4}$ unit).*

Mr. MACARTHUR

106. Animal Chemistry (Animal Nutrition).—The recent advances in the chemistry of nutrition of the lower animals; the chemistry of the functional products; the flesh, fat, milk, and wool of the more common domesticated animals. Lectures; conferences; assigned reading; laboratory. *Five times a week; I, II; (1 to $1\frac{1}{2}$ units).*

Professor GRINDLEY

Prerequisite: Two years' work in chemistry.

107. Calorimetry.—Standards and methods. *One to three times a week; I, II; ($\frac{1}{2}$ to 1 unit).* Professor PARR

107a. Composition and Classification of Coal.—Once a week. *II; ($\frac{1}{2}$ unit).* Professor PARR

108. Advanced Metallography.—Constitution and microstructure of metals and alloys; the relations between their properties, chemical and mechanical treatment, and structure. Assigned reading and laboratory. *Twice a week; II; ($\frac{3}{4}$ unit).* Assistant Professor MCFARLAND

Prerequisite: Chemistry 7 and 78, or equivalent.

109. Advanced Industrial Chemistry.—Seminar. Some of the more important chemical industries; the development and chemical control of processes. *Twice a week; I, II; ($\frac{3}{4}$ unit).* Assistant Professor MCFARLAND

Prerequisite: Chemistry 6, 9, 14, 21 or equivalent.

110. Water Supplies.—Sources of contamination and purification of water for potable or technical use. *One to five times a week; I, II; ($\frac{1}{2}$ to $1\frac{1}{4}$ units).* Professor BARTOW

111. Research.—A thesis will usually be required of students taking the Master's degree and will always be required of students taking the degree of Doctor of Philosophy. (For a description of undergraduate work leading to a thesis, see Chemistry 11.) Work may be taken in the following subjects:

Physical and Electrochemistry.....Professor WASHBURN, Dr. MACINNES

Inorganic Chemistry...Professor BALKE, Assistant Professors SMITH, WEBER

Analytical Chemistry Assistant Professor SMITH

Food ChemistryDr. BEAL

Organic Chemistry.....Professor NOYES, Assistant Professor DERICK

Water ChemistryProfessor BARTOW

Animal Chemistry (Animal Nutrition).....Professor GRINDLEY

Physiological ChemistryMr. MACARTHUR

Industrial Chemistry.....Professor PARR, Assistant Professor MCFARLAND

SUMMER SESSION COURSES

NOTE: With the exception of course S 32, all of the courses in chemistry offered in the Summer Session are equivalent to the courses of the same numbers given during the academic year.

Graduate Work.—The courses which are starred (*) below are accepted for graduate credit in accordance with the introductory paragraphs of the Graduate School Circular under the head of Chemistry.

S 1. Elementary Chemistry.—Inorganic chemistry; the non-metallic elements; illustrated lectures, recitations; laboratory work. *Noyes' Text Book of Chemistry.* Professor BALKE, Dr. HOPKINS, Mr. SEARS

S 1a and S 1b. Inorganic Chemistry.—(For students who have had one year of high school chemistry, or inorganic chemistry for engineering students.) These courses may be taken at the same hours as Chemistry S 1, but only half the laboratory time indicated for S 1 is required.

Professor BALKE, Dr. HOPKINS, Mr. SEARS

S 2. Descriptive Inorganic Chemistry.—(Continuation of S 1.) The metallic elements, their compounds and properties; illustrated lectures and recitations; no laboratory work. Noyes's *Text Book of Chemistry*. (2).

Professor BALKE

Prerequisite: Chemistry 1.

S 3. Qualitative Analysis.—Lectures; recitations; laboratory; Noyes and Smith's *Qualitative Analysis*. (3).

Assistant Professor WEBER

Prerequisite: Chemistry 1.

***S 5a. Elementary Quantitative Analysis.**—Experiments illustrating the fundamental principles of gravimetric and volumetric methods; stoichiometrical relations, the fundamental laws of chemistry and their applications to quantitative analysis. Talbot's *Quantitative Chemical Analysis*. (5).

Dr. BEAL

Prerequisite: Chemistry 1 and 3.

***S 5c. Food Analysis.**—Quantitative organic analysis; food and drug products: alcohols, carbohydrates, fats and oils, animal and vegetable foods, nitrogenous bodies, preservatives and colors. Sherman's *Organic Analysis*. "*Bulletin 107, rev., U. S. Bureau of Chemistry.*" (5).

Dr. BEAL

***S 9a. Organic Synthesis.**—Preparation of the typical compounds discussed in S 14. Noyes's *Organic Chemistry for the Laboratory*.

Assistant Professor DERICK, Mr. KAMM

Prerequisite: Registration in S 14 (First Semester).

***S 9b. Organic Synthesis.**—Continuation of S 9a. Noyes's *Organic Chemistry for the Laboratory*. (2).

Assistant Professor DERICK, Mr. KAMM

Prerequisite: S 9a and registration in S 14 (Second Semester).

***S 14. Organic Chemistry.**—(First Semester.) The more typical and simple organic compounds; important derivatives of carbon. (May be substituted for Chemistry 9 of the academic year.) (3).

Assistant Professor DERICK, Mr. KAMM

Prerequisite: Chemistry 2 and 3.

***S 14. Organic Chemistry.**—(Second Semester.) Lectures and recitations. Noyes's *Organic Chemistry*. (3).

Assistant Professor DERICK

Prerequisite: Chemistry S 14 (First Semester) or equivalent

S 11 and *S 111. Research.—Advanced work and research in inorganic, physical, organic or analytical chemistry.

Professor BALKE, Assistant Professors DERICK and WEBER, Dr. MACINNES, Dr. BEAL

***S 13a. Agricultural Analysis.**—Gravimetric and volumetric analysis; fertilizers and milk. Talbot's *Quantitative Chemical Analysis*. (For students in Agriculture.) (5).

Dr. BEAL

S 17. Teachers' Course.—Methods in teaching *elementary chemistry*; a review of fundamental principles. (1).

Professor BALKE

Prerequisite: One year's work in chemistry.

***S 31. Elementary Physical Chemistry.**—Physical chemistry and electro-chemistry. Problems; lectures; recitations. (3).

Dr. MACINNES

Prerequisite: Chemistry 1, 2, 3; Physics 1 or 2a; Mathematics 8a.

***S 32. Elementary Physical Chemistry.**—S 31 modified for those who have not had calculus.

Prerequisite: Chemistry 1, 2, 3; Physics 1a or 2a.

***S 33. Elementary Physical Chemistry.**—Molecular weight of gases and solutions; chemical equilibrium; the electrical conductivity of solutions and the attendant phenomena within the solution; thermochemistry. (Laboratory to accompany course 31.) (2).
Dr. MACINNES

Prerequisite: Chemistry 5a; Physics 26 or 3.

CIVIL ENGINEERING

IRA OSBORN BAKER, C.E., D.Eng., *Professor*
ALLEN BOYER McDANIEL, B.S., *Assistant Professor*
JAMES ELMO SMITH, C.E., *Assistant Professor*
WILBUR M WILSON, M.M.E., C.E., *Assistant Professor*
CHARLES ALTON ELLIS, A.B., *Assistant Professor*
CARROLL CARSON WILEY, C.E., *Associate*
NEAL BRYANT GARVER, C.E., *Associate*
GEORGE WELLINGTON PICKELS, JR., C.E., *Instructor*
WILLIAM HORACE RAYNER, C.E., *Instructor*
RAYMOND EARL DAVIS, C.E., *Instructor*
*GUY G MILLS, B.S., *Instructor*
BENJAMIN LESTER BOWLING, *Assistant in Cement Laboratory*

Courses for Undergraduates

5r. Masonry Construction.—Baker's *Masonry Construction*. I; (4).

Professor BAKER, Assistant Professor McDANIEL

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 20.

5l. Cement Laboratory Practise.—Standard tests for hydraulic cement. I; (1).

Assistant Professor McDANIEL, Mr. BOWLING

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 20; registration in Civil Engineering 5r.

6a. Theory of Reinforced Concrete.—Beams, columns, and slabs. Turneure and Maurer's *Principles of Reinforced Concrete*. I; (1). Not given after 1914-15.

Assistant Professor McDANIEL, Assistant Professor ELLIS

Prerequisite: Civil Engineering 5r, 5l.

6b. Masonry and Reinforced Concrete Design.—Beams, columns, slabs, arches, dams, retaining walls. II; (2). Not given after 1914-15.

Assistant Professor SMITH

Prerequisite: Civil Engineering 5r, 5l, 6a.

6c. Reinforced Concrete Buildings.—(For architectural engineers.) Theory of design of beams, columns and slabs; design of buildings, methods of construction; estimates of cost. Hool's *Reinforced Concrete Construction*, Vols. I and II. II; (5).

Assistant Professor McDANIEL

Prerequisite: Full senior standing in architectural engineering.

12. Bridge Analysis.—Determination of stresses of bridge trusses by algebraic and graphic methods, under different conditions of loading. Marburg's *Framed Structures and Girders*, Vol. I. I; (2). Not given after 1914-15.

Assistant Professor WILSON, Assistant Professor ELLIS, Mr. GARVER

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; and Civil Engineering 20, or Architecture 5 or 45.

*Second semester.

13. Structural Details.—Roof trusses, bridges, and steel-frame buildings; detail drawings and shop bills. Carnegie's *Pocket Companion*. I; (3). Not given after 1914-15. Assistant Professor WILSON, Mr. GARVER

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; and Civil Engineering 20.

13a. Structural Details.—(For Architectural Engineers.) Roof trusses and steel-frame buildings; detail drawings and shop bills. Carnegie's *Pocket Companion*. I; (2). Not given after 1914-15. Assistant Professor WILSON

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; and Architecture 5 or 45.

14. Steel Bridge Design.—Determination of stresses and sections of a plate girder and a truss span; stress sheet, general design drawings, detail drawings, and shop bills. Marburg's *Framed Structures and Girders*, Vol. I. II; (5). Not given after 1914-15. Assistant Professor WILSON, Mr. GARVER

Prerequisite: Civil Engineering 12, 13, 24.

14a. Steel Bridge Design.—(For Railway Civil Engineers.) Determination of stresses and sections of a plate girder and a truss span. Part of Steel Bridge Design (C.E. 14). Marburg's *Framed Structures and Girders*, Vol. I. II; (2). Not given after 1914-15. Mr. GARVER

Prerequisite: Civil Engineering 12, 24.

14b. Steel Building Design.—(For Architectural Engineers.) Determination of the sections of the members of a steel-skeleton office building; wind stresses; column loads; column schedule; floor plan and typical details; spandrel beams, footings, and grillages. II; (2). Not given after 1914-15.

Assistant Professor WILSON

Prerequisite: Civil Engineering 12, 13a, 24.

15. Advanced Bridge Analysis.—Continuous, draw, cantilever, suspension, and steel-arch bridges, Johnson, Bryan, and Turneure's *Modern Framed Structures*, Part II. II; (2). Not given after 1914-15.

Assistant Professor ELLIS

Prerequisite: Civil Engineering 12, 13, 24, and registration in Civil Engineering 14.

16. Engineering Contracts and Specifications.—The law of contract; general and technical clauses used in engineering specifications. Johnson's *Engineering Contracts and Specifications*. II; (2). Assistant Professor McDANIEL

Prerequisite: Civil Engineering 5, 12, 13; Municipal and Sanitary Engineering 2, 3.

24. Steel Building Design.—Determination of stresses and design of members in steel-frame buildings. Marburg's *Framed Structures and Girders*, Vol. I. I; (1). Not given after 1914-15.

Assistant Professor WILSON, Assistant Professor ELLIS, Mr. GARVER

Prerequisite: Theoretical and Applied Mechanics 7, 8, 9, 10; Civil Engineering 12, 13.

25. Seminar.—One major and two minor papers upon assigned topics; discussion. II; (1). Not given after 1914-15. Professor BAKER

Prerequisite: Full senior standing in Civil Engineering.

27. Plane Surveying.—Theory, use, and adjustment of the compass, transit, and level; computation of areas and partitioning of land; U. S. land

survey methods, re-establishment of corners and boundaries, and interpretation of deeds; farm and city surveying. Problems with the tape, compass, transit, and level. Breed and Hosmer's *Principles and Practice of Surveying*, Vol. I. I; (3).

Assistant Professor SMITH, Mr. WILEY, Mr. PICKELS, Mr. DAVIS

Prerequisite: General Engineering Drawing 1, 2; Mathematics 4.

28. Higher Surveying.—Theory and use of the transit and plane-table in making topographic surveys; methods; determination of latitude, longitude, and azimuth by stellar and solar observations; topographic drawing; a complete topographic survey based on a system of triangulation. Breed and Hosmer's *Principles and Practice of Surveying*, Vol. II. II; (3).

Mr. PICKELS, Mr. RAYNER, Mr. DAVIS

Prerequisite: Civil Engineering 27.

31. Surveying.—(For students in Landscape Architecture.) The theory, use, and adjustment of the compass, level, transit, and plane-table. Determination of distances by pacing and with chain and tape; determination of areas with compass and transit; profile leveling; elementary problems with plane-table. Breed and Hosmer's *Principles and Practice of Surveying*, Vol. I. I; (3).

Mr. PICKELS

Prerequisite: Mathematics 4; Architecture 31, 32.

32. Topographic Surveying.—(For students in Landscape Architecture.) Theory and use of the stadia; conventional topographical signs; contour construction and its use in grading and drainage problems; advanced work with the plane-table. Each student will prepare a large scale topographic map of a portion of the campus. Breed and Hosmer's *Principles and Practice of Surveying*, Vol. II. II; (3).

Mr. PICKELS

Prerequisite: Civil Engineering 31.

33. Surveying.—(For students in Geology.) The use and adjustment of the compass, level, transit, and plane-table. The determination of distances by pacing and with chain and tape; the determination of areas with the compass and transit; differential leveling; survey for a large scale map with plane-table. U. S. land survey methods; problems in strike and dip. Breed and Hosmer's *Principles and Practice of Surveying*, Vol. I. I; (3).

Mr. RAYNER

Prerequisite: Mathematics 4.

34. Topographic Surveying.—(For students in Geology.) Theory and use of stadia measurements; azimuth determinations from solar and stellar observations; lettering, conventional topographic signs; contour construction and its relation to geologic formations; survey for small scale map with plane-table, barometer and pacing methods. Breed and Hosmer's *Principles and Practice of Surveying*, Vol. II. II; (3).

Mr. RAYNER

Prerequisite: Civil Engineering 33.

51. Railroad Surveying.—Economic location, construction, and maintenance of railways; curves, turnouts, and earthwork; preliminary and location surveys of a line of sufficient length to secure familiarity with the methods in actual practise. Each student makes a complete set of maps, profiles, and estimates. Pickels and Wiley's *Railroad Surveying*. I; (5).

Assistant Professor SMITH, Mr. WILEY, Mr. RAYNER, Mr. DAVIS

Prerequisite: Civil Engineering 27, 28.

52. Roads and Pavements.—The construction, maintenance, and cost of earth, gravel, macadam, and bituminous roads; the methods of construction,

cost, durability, and desirability of the various kinds of pavements; maintenance and cleaning of street pavements; the adaptation of pavements to country roads; grades; cross sections; assessment of cost. Baker's *Roads and Pavements*. II; (3). Mr. WILEY

Prerequisite: C.E. 27, 28 or C.E. 31, 32, or C.E. 33, 34.

53. Railroad Surveying.—First eleven weeks of Civil Engineering 51, for municipal and sanitary engineering juniors. I; (3).

58. Graphic Statics.—(For Mining Engineers.) Determination of stresses in roof and bridge trusses and in three-hinged arches. Malcolm's *Elements of Graphic Statics*. II; (2). Mr. GARVER

Prerequisite: Theoretical and Applied Mechanics 20, 25.

60. Structural Stresses.—Elements of graphic statics; determination of stresses in roofs, bridges, and steel-frame buildings by algebraic and graphic methods; Marburg's *Framed Structures and Girders*, Vol. I. II; (4).

Assistant Professor ELLIS, Assistant Professor SMITH, Mr. GARVER

Prerequisite: Theoretical and Applied Mechanics 21, 29.

62. Structural Details.—Roof trusses, bridges, and steel-frame buildings; detail drawings and shop bills. Carnegie's *Pocket Companion*. II; (2).

Assistant Professor ELLIS, Assistant Professor SMITH, Mr. GARVER

Prerequisite: Theoretical and Applied Mechanics 21, 29; and registration in Civil Engineering 60.

70. Seminar.—One major and two minor papers upon assigned topics; discussion. II; (1). Assistant Professor McDANIEL, Mr. RAYNER, Mr. DAVIS

Prerequisite: Full junior standing in Civil Engineering.

76. General Surveying.—U. S. public land surveys; principles of re-establishing corners. Use of transit in finding distances, areas, and in laying out buildings; use of the level in finding profiles and contours. (For students in mechanical engineering.) Pence and Ketchum's *Surveying Manual*; II; (2).

Mr. PICKELS, Mr. MILLS

Prerequisite: Mathematics 4; General Engineering Drawing 1, 2; Physics 1a-1b, 3a-3b.

77. Masonry Construction.—Baker's *Masonry Construction*. I; (4).

Professor BAKER, Assistant Professor McDANIEL

Prerequisite: Theoretical and Applied Mechanics 20, 21, 29, 10; Civil Engineering, 60, 62.

79. Cement Laboratory Practise.—Standard tests for hydraulic cement. I; (1). Assistant Professor McDANIEL, Mr. BOWLING

Prerequisite: Theoretical and Applied Mechanics 20, 21, 29, 10; Civil Engineering 60, 62; registration in Civil Engineering 77.

80. Contracts and Specifications.—The law of contract; general and technical clauses used in engineering specifications. Johnson's *Engineering Contracts and Specifications*. II; (2). Assistant Professor McDANIEL

Prerequisite: Full senior standing in an engineering course.

81. Theory of Reinforced Concrete.—Beams, columns, slabs, etc. Turneure and Maurer's *Principles of Reinforced Concrete*. I; (2).

Assistant Professor McDANIEL, Assistant Professor ELLIS

Prerequisite: Civil Engineering 71, 79, 83, or 85.

[82. Concrete Design.—Plain and reinforced concrete arches, culverts, dams, bridges, and retaining walls. Turneure and Maurer's *Principles of Reinforced Concrete Construction*. II; (4). Not given in 1914-15.

Assistant Professor SMITH

Prerequisite: Civil Engineering 81.]

[83. Bridge Design.—(For Railway Civil Engineers, and Civil Engineers taking the General Civil Engineering Option.) Determination of stresses and sections of a plate girder and a truss span; stress sheet, general design drawings, and estimates of weights. Marburg's *Framed Structures and Girders*, Vol. I. I; (3). Not given in 1914-15.

Prerequisite: Civil Engineering 60, 62.]

[84. Concrete Buildings.—Design of reinforced-concrete buildings. Hool's *Reinforced Concrete Construction*. Vol. II. II; (4). Not given in 1914-15.

Assistant Professor McDANIEL

Prerequisite: Civil Engineering 81.]

[85. Steel-Bridge Design.—(For Civil Engineers taking the Structural Engineering Option.) Same as 83 above, a fuller course. Marburg's *Framed Structures and Girders*, Vol. I. I; (5). Not given in 1914-15.

Prerequisite: Civil Engineering 60, 62.]

86. Reinforced-Concrete Buildings.—(For Architectural Engineers.) Principles, design, and their application to beams, columns and slabs and to various types of buildings. Hool's *Reinforced Concrete Construction*, Vols. I and II. II; (5).

Assistant Professor McDANIEL

Prerequisite: Full senior standing in architectural engineering.

[87. Advanced Bridge Analysis.—Continuous, draw, cantilever, suspension, and steel arch bridges. Johnson, Bryan, and Turneure's *Modern Framed Structures*, Part II. I; (2). Not given in 1914-15.

Prerequisite: Civil Engineering 60, 62; and registration in Civil Engineering 83 or 85.]

[98. Steel Building Design.—Stresses and sections of the steel frame of mill and office buildings; footings and grillages; design drawings and estimate of weights. II; (3). Not given in 1914-15.

Prerequisite: Civil Engineering 60, 62.]

91. Highway Bridge Design.—Types of highway bridges; determination of location, size, and type. Steel bridges, beam, low-truss, and through-truss; methods and cost of construction. I; (4).

Mr. GARVER

Prerequisite: Civil Engineering 60, 62.]

[92. Concrete Bridges and Culverts.—Reinforced-concrete slab, girder, and arch bridges; falsework and forms; estimates of quantities; costs. II; (2). Not given in 1914-15.

Prerequisite: Civil Engineering 77, 79, 81, 91.]

[93. Road Construction.—Merits of different types of roads and pavements; principles of design; preparation of plans, specifications, and estimates of cost. I; (3). Not given in 1914-15.

Prerequisite: Civil Engineering 52, Theoretical and Applied Mechanics 21, 29.]

[94. Highway Administration.—Road construction and maintenance in Europe and America; taxation and methods of financing road work; the relation of highway improvement to social and economic welfare. *II*; (3). Not given in 1914-15. Mr. WILEY

Prerequisite: Senior standing in Civil Engineering course.]

[95. Structural Stresses.—(For Architectural Engineers.) Determination of stresses in steel-frame buildings and in steel bridges by algebraic and graphic methods. *I*; (3). Not given in 1914-15.

Prerequisite: Architecture 5 or 45.]

[96. Road Laboratory.—Examining and testing bituminous and non-bituminous road materials; interpretation of the results. *II*; (2). Not given in 1914-15.

Prerequisite: C.E. 52, 79; Chemistry 73.]

[97. Structural Details.—(For Architectural Engineers.) Roof trusses and steel-frame buildings; detail drawings and shop bills. Carnegie's *Pocket Companion*. *I*; (2).

Prerequisite: Civil Engineering 58, or Architecture 45.

[98. Office-Building Design.—(For Architectural Engineers.) Determination of the sections of the members of a steel skeleton office building; wind stresses; column loads; column schedules; floor plans and typical details; spandrel beams, footings and grillages. *II*; (2). Not given in 1914-15.

Prerequisite: Civil Engineering 60, 62.]

99-100. Thesis.—A problem in investigation or design, subject to the approval of the head of the department. Only students of high standing are permitted to take a thesis. Students not taking a thesis substitute such regular class work as is approved by the head of the department. *I*; (1); *II*; (2).

Professor BAKER

Prerequisite: Full senior standing in Civil Engineering.

Courses for Graduates

106. Reinforced Concrete Design.—Specifications for design in the light of modern tests. Concrete forms. Typical structures. Methods and costs of construction. *Twice a week; I, II. (1½ units or more).*

Assistant Professor McDANIEL

107. Bridge Engineering.—Theory of deflections; the statically indeterminate frame, applications to swing bridges and arches; special graphical methods; theory of suspension bridges; secondary stresses; impact. *Two or three times a week; I, II. (1 unit or more).*

Assistant Professor ELLIS

124. Steel Building Construction.—Steel framing of fireproof office buildings, hotels, and industrial buildings; wind bracing; long columns; eccentrically loaded columns; eccentric connections; analysis of special details; erection methods and costs. *Three times a week; I, II.*

Assistant Professor WILSON

THE CLASSICS

HERBERT JEWETT BARTON, A.M., *Professor, Chairman*

CHARLES MELVILLE MOSS, Ph.D., *Professor*

WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor*

ARTHUR STANLEY PEASE, Ph.D., *Associate Professor*

HOWARD VERNON CANTER, Ph.D., *Assistant Professor*

Majors

A major in the Classics consists of 20 hours in Greek and Latin, of which at least 6 shall be in the secondary language and the remaining hours in the primary language. Only those courses may count toward the major in the Classics which count toward a major in Greek and Latin respectively.

A major in Greek consists of 20 hours, not including Greek 1, 17, 18, 19.

A major in Latin consists of 20 hours, not including Latin 12. Latin 1 may be counted for half credit only.

Honors

For honors in Greek, the major shall be the ordinary one of 20 hours, as defined above; the minors shall be Latin and one other foreign language, or history, or philosophy, or English literature. Neither minor shall consist of less than 8 hours, and the two together must aggregate not less than 20 hours. No course may be counted toward these minors which is not counted toward a major in the department concerned.

For honors in Latin, the major shall consist of 20 hours and shall include Latin 14 and 16; the minors shall be at least one other foreign language, preferably Greek, and one of the following: English literature, a modern language, history, or philosophy with the same conditions as in the case of Greek.

GREEK

Courses for Undergraduates

The courses in translation naturally follow one another in this sequence: 1, 3, 4, 5 (7), 6 (8). Courses 1, 3, and 4 are intended for students who cannot present Greek for entrance to the University, but who desire to commence the study of the language. Course 2 may be taken after course 1 and course 14 after courses 5 or 7. 16, 17, 18, and 19 are open to sophomores, juniors, and seniors; 20 is open to those who have completed one year in history or in classics.

1a-1b. Grammar and Reader.—a (first semester), Attic forms; reading of simple prose; b (second semester), Xenophon's *Anabasis*, Book I. I, II; (4).

Associate Professor OLDFATHER

2a-2b. New Testament Greek.—a (first semester), Reading of selections; b (second semester), Lectures on Canon and Text. I, II; (2).

Professor MOSS

Prerequisite: Greek 1.

3. Second Year Greek.—Xenophon's *Anabasis*, Books II-IV; grammatical drill. I; (3).

Assistant Professor CANTER

Prerequisite: Greek 1.

4. Second Year Greek.—Homer, six Books of the *Iliad*. II; (3).

Assistant Professor CANTER

Prerequisite: Greek 3.

5. Herodotus.—Selections, including portions of Books VI-VIII; Greek lyric poets. II; (3).

Professor MOSS

Prerequisite: Greek 4.

6. Thucydides.—The *Sicilian Expedition*, Books VI-VII. I; (3).

Associate Professor PEASE

Prerequisite: Greek 4.

14. Greek Prose Composition.—II; (1).

Professor MOSS

Prerequisite: Greek 5 and 6 or 7 and 8.

Greek Life and Literature in English

(Courses 16-20 presuppose no knowledge of Greek and are open to all students except freshmen.)

- 16. The Private and Public Life of the Greeks.**—Lectures illustrated by photographs and slides; prescribed readings; *I*; (1). Professor MOSS
- 17. Greek Poetry in Translations.**—*I*; (2). Professor MOSS
- 18. Greek Prose in Translations.**—*I*; (2). Professor MOSS
- 19. Greek Drama in Translations.**—*II*; (2). Professor MOSS
- 20. Greek History.**—(This course is described by the department of history as History 5.) *I*; (3). Associate Professor OLDFATHER
- Prerequisite:* One course in history or the classics. Not open to freshmen.

Courses for Graduates

- 104. Homer and the Homeric Question.**—Lectures and reading in alternate hours. *I, II*; (1 unit). Associate Professor OLDFATHER
- 107. Greek Oratory.**—One or more speeches of each of several orators; lectures and reports. *I, II*; (1 unit). Professor MOSS
- 110. Bibliography and Criticism.**—*Once a week. I, II*; ($\frac{1}{4}$ unit). Associate Professor OLDFATHER, Associate Professor PEASE, and others

LATIN

- 1a-1b. Ovid and Virgil.**—a (first semester), selections from the *Amores*, *Heroides*, and *Metamorphoses*; b (second semester), selections from the *Aeneid*. *I, II*; (4). Associate Professor PEASE, Assistant Professor CANTER
- Prerequisite:* Three entrance units in Latin.
- 2a-2b. Livy, Plautus, and Terence.**—a (first semester); Livy, the story of Hannibal; b (second semester), the *Rudens* of Plautus and the *Phormio* of Terence. *I, II*; (4). Professor BARTON
- Prerequisite:* Four entrance units in Latin.
- 3. Sallust and Cicero.**—Selections from the *Jugurthine War*; *De Senectute*. *I*; (3). Assistant Professor CANTER
- Prerequisite:* Latin 2.
- 4. Horace and Catullus.**—Selections. *II*; (3). Associate Professor OLDFATHER
- Prerequisite:* Latin 2.
- 5a-5b. Latin Composition.**—Grammatical drill and practise in the simpler forms of expression. *I, II*; (1). Assistant Professor CANTER
- Prerequisite:* Latin 1 or its equivalent.

Roman Life and Literature in English

(Courses 12 and 13 presuppose no knowledge of Latin; open to all students except freshmen.)

- 12. Virgil and Horace in English Translations.**—The *Aeneid* and selections from Horace. *I*; (2). Professor BARTON
- 13. Roman Life.**—The family, organizations of society, education, marriage, amusements, with some attention to the monuments. Lectures and assigned readings illustrated by photographs and slides. *II*; (1). Professor BARTON

19. Roman History.—(This course is described by the department of history as History 6.) Not open to freshmen. II; (3).

Assistant Professor CANTER

9. Teachers' Course.—The purpose and methods of preparatory Latin instruction; the teacher's preparation. II; (2).

Professor BARTON

Prerequisite: 17 hours in Latin. A portion of this requirement may be waived in the case of those who have taught Latin.

10. Latin Composition.—The leading principles; imitation of assigned models. I; (2).

Professor BARTON

Prerequisite: 12 hours in Latin, including Latin 5 or its equivalent.

Courses for Advanced Undergraduates and Graduates

7. Horace and Juvenal.—Selections from the *Satires* and *Epistles* of Horace; selected *Satires* of Juvenal. I; (3).

Associate Professor PEASE

Prerequisite: 12 hours in Latin.

[8. Tacitus.—The *Annals*. Books I-VI. I; (3). Not given in 1914-15.

Associate Professor PEASE

Prerequisite: 12 hours in Latin.]

14. Seneca.—Selections from his letters and tragedies. II; (3).

Professor BARTON

Prerequisite: 15 hours in Latin.

[16. Martial and Suetonius.—Selections; lectures on literary history. II; (3). Not given in 1914-15.

Associate Professor OLDFATHER

Prerequisite: 15 hours in Latin.]

22. Late Latin.—Rapid reading of selections from the Latin writers from Minucius Felix to Cassiodorus. II; (2).

Associate Professor PEASE

Prerequisite: Open to seniors and graduates who have had two years of college Latin or who otherwise satisfy the instructor of their ability to do the work required.

Courses for Graduates

Students desiring to take graduate work in Latin should have had at least three years of college Latin in addition to the Latin presented to meet entrance requirements.

103. Cicero.—*De Natura Deorum* and *De Divinatione*; twice a week. I; (1 unit).

Associate Professor PEASE

104. Latin Paleography.—Twice a week. I; (1 unit).

Associate Professor PEASE

[106. Terence.—Twice a week. I; (1 unit). Not given in 1914-15.]

Associate Professor OLDFATHER

107. Latin Epigraphy.—Twice a week. II; (1 unit).

Associate Professor PEASE

108. Tacitus.—The *Histories*. Twice a week. I; (1 unit).

Professor BARTON

109. Virgil.—Twice a week. II; (1 unit).

Associate Professor PEASE

110. Bibliography and Criticism.—Once a week. I, II; (¼ unit).

Associate Professor OLDFATHER, Associate Professor PEASE, and others

112. Roman Historiography.—*Twice a week. II; (1 unit).*

Assistant Professor CANTER

113. Plautus.—*Twice a week. I; (1 unit).* Associate Professor OLDFATHER

114. Caesar.—*Twice a week. II; (1 unit).* Associate Professor OLDFATHER

SUMMER SESSION COURSES

S1. Plautus.—Three plays with brief discussion of the language and verse of comedy. (For those who have had three or four years of high school Latin.) (2).
Assistant Professor CANTER

S2. The Roman Historians.—Selections from Sallust, Livy, Tacitus, and Suetonius, illustrating the aims and methods of each in the field of historical writing. (For those who have had two or three years of college Latin or the equivalent.) (1½).
Assistant Professor CANTER

S3. The Private Life of the Romans.—The house, marriage, dress, education, and amusements. Illustrated lectures and assigned readings. (½).
Professor BARTON

S4. Teachers' Course.—Problems and methods of instruction in Latin in the secondary schools; the essentials of Latin study in the first and second years; books and equipment. The slides and photographs of the Classical Department and the Classical Museum will be at the disposal of the class. (1½).
Professor BARTON

Course for Graduates and Advanced Undergraduates

*S5. Roman Satire.—Lectures and discussions on the origin and history of satire as a department of literature; readings from Horace, Juvenal, Persius, and Petronius. (1½).
Assistant Professor CANTER

COMMERCIAL LAW

(See ECONOMICS and ACCOUNTANCY)

COMPARATIVE PHILOLOGY

LEONARD BLOOMFIELD, Ph.D., *Assistant Professor*

For Graduates and Advanced Undergraduates

1. Introduction to the Study of Language.—Phonetics; the development of forms of speech; dialects and the spread of languages; the study and teaching of language. I; (3).
Assistant Professor BLOOMFIELD

Prerequisite: The consent of the instructor.

2. Comparative Philology of the Indo-European Languages.—Greek, Latin, and the Germanic languages, including English. II; (2).
Assistant Professor BLOOMFIELD

Prerequisite: The consent of the instructor.

3. Elementary Sanskrit.—Reading and grammar. I; (3).
Assistant Professor BLOOMFIELD

Prerequisite: The consent of the instructor.

4. Elementary Sanskrit.—Continuation of 3. II; (3).
Assistant Professor BLOOMFIELD

Prerequisite: Comparative Philology 3.

DAIRY HUSBANDRY

HARRY ALEXIS HARDING, Ph.D., *Professor, Dairy Bacteriology*
 WILBUR JOHN FRASER, M.S., *Professor, Dairy Husbandry*
 MARTIN JOHN PRUCHA, Ph.D., *Assistant Professor, Dairy Bacteriology*
 NELSON WILLIAM HEPBURN, M.S., *Assistant Professor, Dairy Manufactures*
 LEROY LANG, M.S., *Associate, Dairy Manufactures*
 ROYDEN EARL BRAND, M.S., *Associate, Dairy Husbandry*
 FRANK ASHMORE PEARSON, B.S.A., *Instructor, Dairy Husbandry*
 WILLIAM TRUMAN CRANDALL, M.S., *Associate, Milk Production*
 HARRISON AUGUST RUEHE, B.S., *Instructor, Dairy Manufactures*
 RAY STILLMAN HULCE, M.S., *Instructor, Milk Production*
 OLIVER ARNOLD KELLER, B.S., *Assistant, Dairy Manufactures*
 WILLIAM WODIN YAPP, M.S., *Assistant, Dairy Husbandry*
 HARRY MONTGOMERY WEETER, A.B., *Assistant, Dairy Husbandry*
 WILLIAM BARBOUR NEVENS, B.S., *Assistant, Dairy Husbandry*
 PAUL WILLIAM ALLEN, M.S., *Assistant, Dairy Bacteriology*

Courses for Undergraduates

1. Milk Testing.—Official testing; inspectors' methods; tests for purity and adulteration; lactometer; acid tests; tests for preservatives; butter analysis; moisture, salt and fat tests; lectures; assigned readings; laboratory practise. (Alternates with Dairy Husbandry 16 if desired.) *I*; (3).

Assistant Professor HEPBURN, Mr. KELLER

2. Dairy Cattle.—Dairy type and its relation to milk and butter fat production; origin and history of breeds; characteristics, type and adaptability; markets and climatic conditions; prominent families and individuals in principal breeds; herd improvement; selection of animals on performance, breeding and physical conformation; grading up by use of superior sires. Lectures; recitations; judging. Lectures; laboratory. *II*; (4).

Mr. CRANDALL

3. Elements of Dairy Husbandry.—The herd; sanitation; milk testing; milk products. Lectures; demonstrations. (Required of all freshmen in the general course in Agriculture.) *I* or *II*; (1).

Mr. HULCE and members of the Department

4. Ice Cream Making.—Principles; types of freezers; methods of freezing. Mixing and freezing ice cream, sherbets, puddings, and other frozen products. Study of flavoring extracts, fillers and binders. Ice cream standards. *II*; (2).

Mr. RUEHE

Prerequisite: Dairy Husbandry 1.

7. Creamery Buttermaking and Factory Management.—Types of creameries; raw product received; grading; pasteurization; use of commercial starters; ripening; churning; salting; working butter. Butter composition; uniformity and methods of control; butter scoring. Creamery accounting and business methods; co-operative and centralized management; sale of creamery by-products; refrigerating; location and creamery plans; disposal of sewage. Lectures; assigned readings; laboratory practise. *II*; (5).

Assistant Professor HEPBURN, Mr. LANG

Prerequisite: Dairy Husbandry 1.

8. City Milk Supply.—Production, transportation, and delivery of city milk. Especial emphasis upon the sanitary aspects. *II; (2).*

Professor HARDING

Prerequisite: Dairy Husbandry 1.

11. Dairy Bacteriology.—Bacteria of milk and its products from the udder to the consumer; methods of introduction; effect upon the milk; and methods for control. Lectures; *I; (1);* laboratory; *I; (4).* Professor HARDING

Prerequisite: Bacteriology 5.

16. Feeding Dairy Cattle.—Compounding rations for dairy cows; preparation of feeds; study of station feeding tests; effect of feeds on milk products; calf raising, feeding and general care; barn arrangement, with reference to storage and feeding; types of mangers and silos. A study of the feeding of the University dairy herds and the types of silos in use. (Alternates with Dairy Husbandry 1 if desired). *I; (3).*

Mr. HULCE

Prerequisite: Animal Husbandry 6.

17. Advanced Study of Dairy Breeds.—Origin and history of dairy breeds; prominent families and noted individuals, their characteristics and producing abilities; pedigree work with emphasis upon performance records; advanced registry systems; problems of the breeder of pure bred dairy cattle. The student may specialize in the particular breed in which he is interested. Lectures; assigned readings; seminar work. *I; (2).*

Mr. CRANDALL

Prerequisite: Dairy Husbandry 2 and 16.

19. Farm Dairying.—Farm butter making; systems of creaming milk; cooling and storing cream; ripening, churning, working, and marketing butter; the hand separator; plans of dairy houses for various products. Lectures; laboratory. *I; (2).*

Assistant Professor HEPBURN, Mr. KELLER

Prerequisite: Dairy Husbandry 1.

21. Systems of Dairy Farming.—Relation of the cow and the herd to profits; how to establish and perpetuate a dairy herd of the highest efficiency; economy of crops and rations; systems of cropping; organization; location and arrangement of buildings and lots; farm accounts, records and inventories; markets; care and disposal of milk at the greatest profit. *II; (5).*

Professor FRASER

Prerequisite: Dairy Husbandry 2 and 16.

22. Cheese Making.—Ripening and settling milk; cutting, cooking, and dipping curd; cheddaring, milling, matting, and salting curds; pressing and curing cheese; cottage, Neufchatel and other varieties; practise in making more common varieties. Alternates with Dairy Husbandry 19 if desired. *I; (3).*

Mr. LANG, Mr. KELLER

Prerequisite: Dairy Husbandry 1.

Courses for Graduates

101. Economic Milk Production.—Differences in the efficiency of dairy cows, cause and effect of the same, and the relation this bears to successful dairy farming. *Twice a week. I, II; (1 unit).*

Professor FRASER

102. Research.—Progress in the dairy herds of the state. *I, II; (1 unit).*

Professor FRASER

103. Research.—Dairy Feeding Problems. *I, II; (1 unit).*

Professor FRASER

104. Dairy Bacteriology.—*I, II; (2 units).*

Professor HARDING

DENTISTRY

(See under COLLEGE OF DENTISTRY)

DRAWING, GENERAL ENGINEERING

HARRY WILLARD MILLER, M.E., *Assistant Professor*

ROBERT KENT STEWARD, C.E., *Associate*

FRANCIS MARION PORTER, M.S., *Associate*

*HAROLD ORDWAY RUGG, C.E., *Instructor*

HARVEY HERBERT JORDAN, B.S., *Instructor*

RUFUS CRANE, A.B., B.S., *Instructor*

CLARENCE ALLEN ATWELL, B.S., *Assistant*

ROBERT MAURICE HUSBAND, *Half-time Assistant*

1. **Elements of Drafting.**—Lettering; isometric oblique and perspective drawing, orthographic projection; machine sketching; working drawings. Lettering; mechanical styles and the making of name plates and titles. Mechanical drawing: 12 plates from copy and 6 plates from models, with tracings of each. Dimensioned sketches from parts of standard machines; complete working drawings. Tracings duplicated in blue-print form. Time sketches of equipment. Miller's *Mechanical Drafting*. *I or II; (4).*

Assistant Professor MILLER and department staff

2. **Descriptive Geometry.**—The point, line, and plane; the properties of surfaces; intersections and developments. (For architects, perspective instead of intersections and developments.) Practical problems; recitations. Three drawing room plates, 2 hours each, 5 problems per plate, and 2 home plates, 5 problems each per week. Miller's *Descriptive Geometry*, *I or II; (4).*

Assistant Professor MILLER and department staff

Prerequisite: Solid geometry, college algebra, plane trigonometry.

12. **Descriptive Geometry.**—Similar to G. E. D. 2, but more condensed. (For students in ceramics and business.) *II; (3).*

21. **Advanced Descriptive Geometry.**—Review of course 2; the cylinder, cone, convolute and warped surface; intersections of these surfaces in pairs, and by planes; planes tangent; developable and approximately developable surfaces and doubly curved and complex surfaces of revolution; practical applications and methods. *II; (2).*

Mr. PORTER

Prerequisite: G. E. D. 1, 2.

SUMMER SESSION COURSES

S 1. **Elements of Drafting.**—Freehand and mechanical lettering; practice in the use of instruments on standard set of drawing plates; tracing, machine sketching, isometric and oblique projection, and perspective. (Required of all engineering students.) Miller's *Mechanical Drafting*. (4).

Mr. JORDAN

S 2. **Descriptive Geometry.**—Point, line, and plane; the properties of surfaces; intersections and developments of surfaces. Miller's *Descriptive Geometry*. (4).

Mr. JORDAN

*Resigned, February 1, 1915.

ECONOMICS

(Including ACCOUNTANCY.)

DAVID KINLEY, Ph.D., LL.D., *Professor**MAURICE HENRY ROBINSON, Ph.D., *Professor*ERNEST RITSON DEWSNUP, A.M., *Professor*ERNEST LUDLOW BOGART, Ph.D., *Professor*GEORGE ENFIELD FRAZER, A.B., LL.B., *Professor*WILLIAM ARTHUR CHASE, LL.B., C.P.A., *Lecturer, in charge of work in Accountancy*NATHAN AUSTIN WESTON, Ph.D., *Assistant Professor*SIMON LITMAN, Dr. Jur. Pub. et Rer. Cam., *Assistant Professor*RALPH EMERSON HEILMAN, Ph.D., *Assistant Professor*CHARLES MANFRED THOMPSON, Ph.D., *Associate*JOHN GIFFEN THOMPSON, Ph.D., *Instructor*HIRAM THOMPSON SCOVILL, A.B., *Instructor*HARRISON McJOHNSTON, A.M., *Instructor*ROGER FRANK LITTLE, A.B., LL.B., *Lecturer, Business Law*ELMORE PETERSEN, A.B., *Assistant*WILLIAM HENRY DREESEN, A.B., *Assistant*EDWARD LAWRENCE MCKENNA, A.B., *Assistant*CHARLES KELLY KNIGHT, A.M., *Assistant*CHARLES LESLIE STEWART, A.M., *Fellow*JOHN EMMETT KIRSHMAN, Ph.M., *Fellow***SUMMER SESSION ONLY**FRANK TRACEY CARLTON, Ph.D., *Albion College*

The department of economics includes general economics, economic history, finance, commerce, commercial law, industry, railway administration and accountancy. The courses in commercial law and accountancy may not be counted towards a major in economics.

Courses 7 (English Economic History), 22 (Economic History of the United States), and 26 (Economic Resources), are open to freshmen without previous requirement. Course 27 is also open to freshmen, but requires credit in course 26 or an approved high school course in commercial geography.

Courses 4a-4b, 5, 8, 10, 11, 12, 13, 17, 19, 20, 21, 29, 30, 41, 42, 43a-43b, 45a-45b and 51 are open to graduates and advanced undergraduates.

Courses numbered 101 and above are open to graduate students only.

The courses in accountancy and commercial law, which are given in the Department, may not be counted towards a major in economics.

*A. ECONOMICS***Courses for Undergraduates****1. Principles of Economics.—I; (5).**

Professor DEWSNUP, Assistant Professor WESTON, Dr. J. G. THOMPSON and Assistants

Prerequisite: At least thirty hours of university work.

*On leave 1914-1915.

2. Principles of Economics.—Section A open to junior and senior engineering students only; section C to junior and senior agricultural students only. *I* or *II*; (2).

Professor BOGART, Assistant Professor LITMAN, Assistant Professor HEILMAN and Assistants

Prerequisite: Junior or senior standing in the Colleges of Engineering or Agriculture.

3. Money and Banking.—Money, credit, and banking. *II*; (3).

Assistant Professor WESTON, Dr. C. M. THOMPSON, and assistants

Prerequisite: Economics 1.

[4a-4b. Financial History of the United States.—First semester; colonial and federal finance, including currency, banking, tariff and fiscal questions, to the period of the Civil War. Second semester; finances of the Civil War and Reconstruction periods, and the recent development of public and private finance. (Either semester's work may be taken separately.) *I*, *II*; (2). Not given in 1914-15.

Assistant Professor WESTON

Prerequisite: Economics 3 and senior standing.]

5. Public Finance.—Public expenditures; financial administration; taxation; public debts. *I*; (3).

Professor BOGART

Prerequisite: Economics 1 and 3. Students who have had 6 hours in history and Political Science 1, and who present a statement from the department of political science showing that they are taking political science as a major, may be admitted without Economics 3.

6. Business Organization.—Business enterprises and their organization; individual proprietorship, partnership, and corporation. Organization for operating purposes and the effect of the organization on business and technical efficiency. Commercial and industrial associations. *II*; (2).

Mr. PETERSEN

Prerequisite: Economics 1, and 3 either preceding or concurrent. Open to students of business administration only.

7. English Economic History.—The industrial development of England; the manorial system; the guilds; the commercial policy and expansion of the seventeenth and eighteenth centuries; the industrial and manufacturing growth of the nineteenth century. Open to freshmen and sophomores only. *I*; (3).

Professor BOGART, Dr. C. M. THOMPSON, and assistants

8. The Money Market.—Money and credit; money broker and banker; the concentration of financial dealings at such centers as New York and London; international payments and rates of foreign exchange; the seasonal demands for money; fluctuation in rates of discount; monetary panics and crises; investments; dealings on the stock and produce exchanges. *II*; (2).

Assistant Professor WESTON

Prerequisite: Economics 9. Open to students of business administration only.

9. Practical Banking.—Banking practise in the United States. *I*; (2).

Assistant Professor WESTON

Prerequisite: Economics 3; senior standing. Open to students of business administration only.

10. Corporation Management and Finance.—Growth of corporations; causes, and forms of corporations; the promotion, financiering, incorporation, and capitalization of corporate consolidations; their organization and securities;

position and relation of stockholders and directors, analysis of reports, stock speculation, relations of industrial corporations to international competition, receiverships and reorganizations; social and political effects. *II*; (3).

Assistant Professor HEILMAN

Prerequisite: Economics 1 and 3.

11. Industrial Consolidation.—The growth, prices, and methods, the effect of trusts on prices, wages, interest, and profits of monopoly; the control of trusts. *II*; (3). Not given in 1914-15.

Prerequisite: Economics 10.]

12. Labor Problems.—The condition and claims of labor and the principles underlying them. *I*; (3).

Assistant Professor HEILMAN

Prerequisite: Economics 1 and 3. Students who have had 6 hours in history and Sociology 1 and who present a statement from the department of sociology showing that they are taking sociology as a major, may be admitted without Economics 3.

13. Economic Development of Europe.—The economic history of France, Germany, and England since the period of the industrial revolution. *II*; (3).

Professor BOGART

Prerequisite: At least sixty hours of university work, including Economics 1 and 3. Students who present a statement from the department of history showing that they are taking history as a major, may be admitted without Economics 3.

14. Agricultural Cooperation.—The organization, financing, and management of cooperative associations for the promotion of various branches of farming. Open to junior and senior students of agriculture only. *II*; (2).

Mr. PETERSEN

Prerequisite: Economics 2.

15. Rural Credit.—The credit and banking needs of farmers and rural communities; ways of supplying them. Open to junior and senior students of agriculture only. *I*; (2).

Mr. STEWART

Prerequisite: Economics 2.

16. Economic Problems.—A: Railway problems; taxation of corporations; the labor question. C: Special topics relating to agriculture. A open to students of engineering only; C open to students of agriculture only. *II*; Sec. A (2); Sec. C (3).

Professor DEWSNUP, Dr. J. G. THOMPSON

Prerequisite: Economics 2.

17. Economic History of Agriculture.—The development of agriculture as an industry. Land tenure and landed property. Farms or estates; extensive and intensive culture; credit and markets; labor. State of the agricultural class; organization; relation to other industries, and to the state. General aspects of farm management. *II*; (2).

Dr. J. G. THOMPSON

Prerequisite: Economics 1 and 3 and senior standing. Seniors in the College of Agriculture who have had Economics 1 or 2 may be admitted to the course by special permission of the instructor.

18a-18b. Senior Theses.—Investigation in economics, commerce, and industry; the preparation of theses. Business students and others making economics a major should take this course. *I, II*; (2).

Professor DEWSNUP

19. United States Industry, 1820-1860.—Growth, distribution, and character of the population, with reference to the public domain and the Western movement; inland communication and transportation; foreign commerce and the carrying trade; distribution, extent, and methods of agriculture; manufacturing, labor and labor saving machinery; currency and banking; the tariff. *I*; (2). Dr. C. M. THOMPSON

Prerequisite: Open to graduates and seniors who have had Economics 1 and are taking a major in one of the social sciences.

20. United States Industry Since 1860.—Improved methods of agriculture, and the effect of exploiting new lands; the factory system; the organization of labor; evolution of "big business"; growth of urban centers; mining; immigration and its economic effects; monetary questions; railroads and interstate trade; foreign commerce; the tariff. *II*; (2). Dr. C. M. THOMPSON

Prerequisite: Open to graduates and seniors who have had Economics 1 and are taking a major in one of the social sciences.

21. Socialism and Economic Reform.—The important socialistic theories. *II*; (3). Assistant Professor HEILMAN

Prerequisite: Economics 1 and 12.

22. The Economic History of the United States.—Colonization, growth of industry, agriculture, commerce, transportation, and labor. Open to freshmen and sophomores only. *II*; (3).

Professor BOGART, Dr. C. M. THOMPSON, Dr. J. G. THOMPSON, and assistants

23. Elementary Law.—Contracts, leases, and landed property. Open to junior and senior students of agriculture only. *II*; (3). Mr. LITTLE

Prerequisite: Economics 2.

25a-25b. Commercial Law.—Contracts; negotiable instruments; agency; partnerships; business corporations; sales of personal property; bailments and carriers; guaranty and suretyship; insurance. The course may not be counted toward a major in economics. *I, II*; (2). Mr. CHASE

Prerequisite: At least sixty hours of university credit including Economics 1 and Accountancy 1a-1b.

26. Economic Resources.—Commercial and industrial development; products and industries of different countries; resources and industrial and commercial activities of the United States. Open to freshmen and sophomores only. *I*; (3). Assistant Professor LITMAN and assistants

27. Modern Industries.—Raw materials; their distribution and economic significance; the leading industries for their utilization; sources of power; investment of capital; employment; production; distribution. Open to freshmen and sophomores only. *II*; (3). Assistant Professor LITMAN and an assistant

Prerequisite: Economics 26, or an approved high school course in commercial geography.

28. Mechanism and Technique of Domestic Commerce.—Internal trade; wholesale and retail trade organizations; markets, fairs, auctions, stock and produce exchanges; department, mail-order, and cooperative stores; commercial travelers; commercial competition; modern advertising; mercantile credit. *I*; (3). Assistant Professor LITMAN

Prerequisite: Economics 1, 3 and 26 or 27.

[29. Foreign Commerce and Commercial Politics.—International trade relations, and attempts to solve them; changes in theories and in policies; economic systems (mercantile, free-trade, protective); customs tariffs; commercial treaties; shipping; export trade (commercial museums, consular service). *I*; (3). Not given in 1914-15.

Assistant Professor LITMAN

Prerequisite: Economics 1, 3 and 26 or 27.]

[30. Tariff and Customs Regulations of the United States.—Tariff legislation; the present tariff system; the custom house; entry of goods. *II*; (3). Not given in 1914-15.

Assistant Professor LITMAN

Prerequisite: Economics 29.]

31. Organization of Foreign Commerce.—Exporting and importing; communication and transportation; the shipping business; duties of consuls. *II*; (3).

Assistant Professor LITMAN

Prerequisite: Economics 28.

33. Economics of Insurance.—Historical development and economic aspects. *II*; (2).

Professor RIETZ

Prerequisite: Economics 1 and 3.

[34. Property Insurance.—Fire, marine, title, and credit insurance and corporate suretyship. Their technical characteristics and economic effects. *I*; (2). Not given in 1914-15.

Prerequisite: Economics 1 and 3.]

37. Salesmanship.—Modern sales organizations; selling problems of manufacturers, wholesalers; management of salesmen; study of the practise of individual salesmen. *I*; (3).

Mr. McJOHNSTON

Prerequisite: Economics 1 and 6. Open to students of business administration only.

38. Advertising.—Principles and current practise; cooperation with personal selling; special problems; planning sales campaigns; choice of media; space buying; practise in writing copy. *II*; (3).

Mr. McJOHNSTON

Prerequisite: Economics 1 and 6. Open to students of business administration only.

41. Railway Transportation.—The United States; conditions abroad. The railway system; the relation of waterway and interurban competition to railway development; financial aspects of railway corporation; railway management; combinations; rate-making; relations with state and federal governments; the relation of European railways to the state. *I*; (3).

Professor DEWSNUP

Prerequisite: Economics 1 and 3; for engineers, Economics 2.

42. Railway Rates: Their Construction and Regulations.—Rate structure of the United States; the Interstate Commerce Commission; its relation to theories of rate making. *II*; (3).

Professor DEWSNUP

Prerequisite: Economics 41.

[43a-43b. Railway Traffic Administration.—Organization and methods of management. Registration in the second semester is permitted only to those who obtain credit in the first semester. *I, II*; (2). Not given in 1914-15.

Professor DEWSNUP

Prerequisite: Economics 1 and 3. Open to students of business administration only.]

45a-45b. Problems of Railway Operation.—Organization; economic problems of maintenance of way; motive power and equipment; materials and their distribution; train movement; yard and terminal services. Registration in the second semester is permitted only to those who obtain credit in the work of the first semester. Open to students of business administration only. *I, II; (2).* Professor DEWSNUP

Prerequisite: Economics 1 and 3.

51. Public Utilities.—Public service corporations; methods of regulation, by franchises, sliding scales, municipal and state commissions; methods of control over accounting, capitalization, and service; the principles of valuation and rate making; recent decisions of commissions; tendencies in regulation. *I; (3).* Assistant Professor HEILMAN

Prerequisite: Open to graduates and seniors who have had Economics 10.

Courses for Graduates

Every student entering upon graduate work in economics must have had a thoro course in the principles of the science and should also have studied some special part of the field of economics, such as public finance or money and banking.

The department of economics includes general economics, economic history, finance, commerce, and industry.

Complete sets of all the important French, German, English, and American economic and financial journals are on hand; ninety periodicals, foreign and domestic, in economics, finance, commerce, industry, statistics, etc., are currently received. The library is especially strong in railroad literature, economic history, labor, finance, and general theory.

101. Economic Theory.—*Twice a week. I, II; (1 unit).*

Professor KINLEY

[102. Advanced General Economics.—*Twice a week. I, II; (1 unit).* Not given in 1914-15.]

Professor KINLEY

[103. Railway Administration.—Current railway management. Primarily intended for candidates for the degree of A. M. in Railway Administration. *Once a week. I, II; (½ unit).*

Professor DEWSNUP

Not given in 1914-15.]

104. Foreign and Colonial Commerce of the United States.—Government publications. *Twice a week. II; (1 unit).* Assistant Professor LITMAN

[105. Public Finance.—Public revenue and expenditure. *Twice a week. I, II; (1 unit).*

Professor BOGART

Not given in 1914-15.]

[106. Railway Policy.—A: Railway development in the United States and B: in foreign countries, particularly in western Europe. C: the state and the railway. The cycle of topics requires three years for the completion of the course. *Once a week. I, II; (½ unit).*

Professor DEWSNUP

Not given in 1914-15.]

[107. The Corporation in Economic Evolution.—*Once a week. I, II; (¼ unit).* Not given in 1914-15.]

[109. Theory of Industrial Consolidations.—Their nature; the conditions of their development; their effects upon the production and distribution of wealth. *Once a week. I, II; (¼ unit).* Not given in 1914-15.]

118. Seminar.—*I, II.*

Professor KINLEY and others

120. History of Economic Thought.—*Twice a week. I; (1 unit).*

Dr. J. G. THOMPSON

122. Advanced Economic History of the United States.—*Twice a week. I, II; (1 unit).*

Professor BOGART

SUMMER SESSION COURSES

S 2. Principle of Economics.—A survey, with reference to the needs of teachers, general readers and university students. Advanced students of the University who wish to anticipate Economics 2 may do so by taking this course; but it will not be accepted as part fulfillment of Economics 1. (2).

Dr. C. M. THOMPSON

Prerequisite: For university students at least 60 hours of university credit; for teachers and other mature students, enrolled for the Summer Session only, the permission of the instructor.

***S 12. History and Problems of Organized Labor.**—The history, aims, ideals, methods, structure, and problems of American labor organizations. (2½).

Professor CARLTON

Prerequisite: Senior or graduate standing and eight hours in economics.

S 22. Industrial History of the United States.—Industrial evolution: colonial economy to the industrial organization of the twentieth century. (2½).

Professor CARLTON

S 27. Resources and Industries.—The effects of environment and other factors upon economic activities of different countries; extractive, cultivating, and manufacturing industries; their nature, status and importance in the world's trade. (2½).

Assistant Professor LITMAN

S 28. Domestic and Foreign Commerce.—Marketing methods; trade organizations; commercial competition; mercantile credit; the purchase and sale of commodities in foreign countries. (2½).

Assistant Professor LITMAN

Prerequisite: This course is open (1) to teachers of commercial subjects, and (2) to others who have two years of university credit including Economics 1 and 3, or the equivalent.

B. ACCOUNTANCY

Courses 1, 8, and 9 are open to students in any of the Colleges. Courses 2 and 3 are open to students of business administration only; course 10, to students of engineering only; and course 11, to students of agriculture only. The accountancy courses may not be counted towards a major in Economics.

1a-1b. Elementary and Intermediate Accounting.—The technique and the science of accountancy. If elected this course must be taken throughout the year in order to secure credit. *I, II; (3).*

Mr. CHASE, Mr. SCOVILL

Prerequisite: Thirty hours of university credit and registration in Economics 1.

2a-2b.—Advanced Accounting and Auditing.—The technique of book-keeping as applied in accounting in its more advanced stage. If elected this course must be taken throughout the year in order to secure credit. *I, II; (3).*

Mr. CHASE, Mr. SCOVILL

Prerequisite: Accountancy 1a-1b. Open to students of business administration only.

3a-3b. Accounting Problems and Auditing.—Modern business organization such as partnership, corporation, and cost accounting; municipal accounting and the accounting of the amalgamation of companies; auditing. If elected this course must be taken throughout the year in order to secure credit. *I, II; (2).*

Mr. CHASE

Prerequisite: Accountancy 2a-2b. Open to students of business administration only.

8. Elementary Governmental Accounting.—Use of government reports; governmental accounting. *I; (2).*

Professor FRAZER

Prerequisite: Accountancy 1a-1b and either concurrent registration or previous credit in Economics 5.

9. Institutional Accounting.—Functional organization; personnel; budgetary control; purchasing; store-keeping; perpetual inventories. *II; (2).*

Prerequisite: Accountancy 1a-1b and eight hours in economics, political science, or sociology.

Professor FRAZER

10. Shop Management and Cost Keeping.—Types of industries; labor distribution; materials used. Records suitable for each kind of industry; the standpoint of the engineer and shop manager. *II; (2).*

Mr. SCOVILL

Prerequisite: Open only to engineering students who have had Economics 1 or 2.

11. Farm Accounting.—Practical accounting systems for different kinds of farm operations and for different kinds of farming. *I; (2).*

Mr. SCOVILL

Prerequisite: Open to junior and senior students of agriculture only.

EDUCATION

WILLIAM CHANDLER BAGLEY, Ph.D., *Professor*

LOTUS DELTA COFFMAN, Ph.D., *Professor*

CHARLES HUGHES JOHNSTON, Ph.D., *Professor*

HORACE ADELBERT HOLLISTER, A.M., *Professor*

GUY MONTROSE WHIPPLE, Ph.D., *Associate Professor*

WILFORD STANTON MILLER, A.M., *Assistant and Secretary*

JAMES HOWARD HANGER, A.M., *Assistant*

MARGARET VARA COBB, A.M., *Assistant*

SUMMER SESSION ONLY

LEWIS FLINT ANDERSON, Ph.D., *Assistant Professor of Education*

LOUIS W RAPEER, Ph.D., *New York Training School for Teachers*

ALFRED LAWRENCE HALL-QUEST, A.M., *Assistant in Education*

CHARLES LEROY HARLAN, A.B., *Assistant in Education*

The courses of the department fall into two general divisions: courses primarily for professional training and courses more specifically designed for general culture. The first division includes courses 1, 4, 9, 10, 11, 15, 18, and 20; the second division, courses 2, 5, 12, 13, and 16. Students majoring in education will be required to take at least three hours in psychology in addition to the requirements in education. Courses 1 and 5 in psychology are especially recommended.

Honors

Candidates for honors in education must offer:

1. A minimum of 18 hours in education and 6 hours in psychology. Teachers' courses, not to exceed 3 hours in all, offered by other departments of the

University, may, with the approval of the department of education, be counted as part of this requirement.

2. Minors in either (1) psychology (at least 9 hours exclusive of the 6 hours counted toward the major) and one subject selected from those that are usually taught in secondary schools, or (2) any two related subjects commonly taught in secondary schools. No course may be counted toward the minimum requirement for minors which may not be counted toward the major requirement in such subjects.

Introductory Courses

1. **Introduction to Education.**—(a) The American public-school system; (b) the principles and the aim of education; the biological basis, heredity, and environment; instinct, habit and habit-formation; memory, and the higher mental processes. (Required, by Senate ruling, of all students who secure the official indorsement of the Appointments Committee for teaching positions in secondary schools.) *I or II*; (4).

Professor BAGLEY, Mr. MILLER

Prerequisite: Junior standing.

2. **History of Education.**—Educational theory and practise as related to the history of civilization; Greek, Roman, medieval, and modern education. Texts: Monroe's *Brief Course in the History of Education*; Anderson's *History of Common School Education*. *II*; (5).

Professor JOHNSTON

Prerequisite: Two years of university work.

Intermediate Courses

10. **The Technique of Teaching.**—Types of classroom exercises and the preparation of teaching plans; the hygiene of instruction; classroom management; professional ethics; observation in neighboring high schools. (Required, by Senate ruling, of all students who secure the official recommendation of the Appointments Committee for teaching positions in secondary schools.) *I or II*; (3).

Professor BAGLEY, Professor COFFMAN

Prerequisite: Education 1.

16. **Social Education.**—The school as a social factor in its relation to the home, the church, and the state; the relation of education to child labor, vocation, and crime; the school as a community center; the social composition of student—and teaching—populations; educational extension. *I*; (3).

Professor COFFMAN

Prerequisite: Two years of university work.

Advanced Courses for Graduates and Undergraduates

4. **Educational Administration.**—Present tendencies in the school systems of typical cities and states; experiments in administration, discipline, and methods of teaching. *I*; (3).

Professor COFFMAN

Prerequisite: Education 1, 2.

5. **Comparative Education.**—The school systems of the United States, Germany, England, France, and Canada, with emphasis upon secondary schools. *I*; (3).

Professor JOHNSTON

Prerequisite: Education 1, 2.

25. **Educational Psychology.**—Instinct; habit and the acquisition of skill; perception and memory; conception, judgment, and reasoning. Lectures and demonstrations. *I*; (3).

Associate Professor WHIPPLE

Prerequisite: Psychology 1 or Education 1.

6. Principles of High-School Education.—The evolution of high schools and of the fundamental conceptions of secondary education; relation of high schools to the state systems; legal status; articulation with the elementary school, the college, the technical school, the community, and the home; the teaching staff; reorganization of curriculums; "controls" of construction; direction of student activities. *I*; (3).

Professor JOHNSTON

Prerequisite: Education 1.

27. High-School Curriculums.—Curriculum-making; professional supervision; materials, text-books, and other teaching devices; the psychology of high-school branches of study; the framing of curriculums for typical communities. *II*; (3).

Professor JOHNSTON

Prerequisite: Education 1.

13-14. Educational Classics.—Educational writings of Plato, Aristotle, Quintilian, Montaigne, Vittorino, Da Feltre, Milton, Locke, Comenius, Rousseau, Pestalozzi, Froebel, and Herbert Spencer. (This course is required of all candidates for advanced degrees in education.) *I, II*; (3).

Associate Professor WHIPPLE

Prerequisite: Education 1, 2.

15. School Hygiene.—School architecture and equipment; the heating, ventilation, and lighting of school buildings; the hygiene of posture, exercise, and fatigue, and of reading and writing; the program of studies and the daily time table; the mental health of teachers and pupils; contagious diseases and the relation of school authorities to health authorities. (Graduate credit subject to approval of Executive Faculty.) *II*; (2).

Associate Professor WHIPPLE

Prerequisite: Education 1 (or normal-school graduation, or two years of teaching experience, with at least junior standing).

18. Method in Educational Research.—Methods of educational investigation. (Ordinarily required of all candidates for advanced degrees.) *I*; (2).

Professor COFFMAN

Prerequisite: Education 1.

20a. Theory of Supervision.—The training of teachers in service; the measuring of educational products; qualities of merit and causes of failure; selection of teachers; meetings and other agencies for improving the teaching service. *II*; (3).

Professor COFFMAN

Prerequisite: Education 1.

20b. Theory and Practise of Supervision.—Identical with 20a except for the addition of a period each week devoted to the observation and criticism of teaching in elementary and high schools. *II*; (3).

Professor COFFMAN

Prerequisite: Education 1.

41. Vocational Education.—Institutions and methods of elementary and secondary vocational education; federal, state, and municipal provisions; recent legislation; present tendencies. *I*; (3).

Professor JOHNSTON

Prerequisite: Education 1 (or an equivalent satisfactory to the instructor).

42. Auxiliary Education.—The institutions and methods involved in the training of defectives and delinquents; the Binet-Simon tests and other methods of mental diagnosis; educational treatment of morons and of moral delinquents; an outline of the methods of teaching sensory defectives (the blind and the deaf); public institutions of auxiliary education and their administration. *II*; (3).

Associate Professor WHIPPLE

Courses for Graduates

101. Seminar in Educational Theory.—Topic for 1914: Educational values; programs, and the construction of school text-books. *I; (1 unit).*

Professor BAGLEY

[**105. Seminar in History of Education.**—(Not given in 1914-15.)]

106. Seminar in Secondary Education.—Organization, administration, and special methods of secondary education; independent investigation by advanced students. *II; (1 unit).*

Professor JOHNSTON

104. Seminar in Administration and Supervision.—Reading and discussion of technical monographs on educational administration and supervision, school finance, retardation, measurement of educational products, educational surveys, and the rating of teachers. Each member will report upon some specific phase. *Once a week. II; (1 unit).*

Professor COFFMAN

[**111.—Practise Teaching.**—(Not given in 1914-15.)]

112. Principles of Education.—For graduate students not majoring in education who have not taken undergraduate courses in the subject. (1) The American public-school system; (2) principles and doctrines of educational science; and (3) the technique of teaching and the problems of class management. *Twice a week. II; (½ unit).*

Professor BAGLEY

119. The Elementary Curriculum.—Elementary-school studies; time allotments; the construction of curriculums. *Three times a week. II; (1 unit).*

Professor COFFMAN

125. Seminar in Educational Psychology.—Marking systems. *Twice a week. I; (1 unit).*

Associate Professor WHIPPLE

Departmental Conference.—Meeting of graduate students majoring in education with the departmental staff. *(No credit.) I, II.*

SUMMER SESSION COURSES

Education and Psychology

NOTE: The prerequisites of the following courses may, in the discretion of the instructor in charge of each course, be modified in their application to *teachers* who may desire to enroll in the courses in question.

Teachers who do not wish to matriculate in the University or who cannot enroll as conditioned or as special students may register in the Summer Session for courses *not carrying university credit*. A list of such courses, offered in education and psychology, will be found at the close of the following announcement.

Courses for Undergraduates

S 1a. Principles of Education.—The function of education; formal and informal education; the relation of physical and mental development to the art of teaching; educational values. Bagley's *Educative Process*. (2). MR. MILLER

Prerequisite: Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

S 1b. The Educational System.—The school system of the United State, its organization, origin, and distinctive characteristics, its present problems. Lectures and readings. (1).

Professor BAGLEY

Prerequisite: Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet the requirement).

S 2. History of Education.—Educational theory and practise in their relation to the history of civilization. Monroe's *History of Education: Brief Course*. (2½). Assistant Professor ANDERSON

Prerequisite: Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet the requirement).

S 15. School Hygiene.—The location and construction of school buildings; the hygiene of lighting, heating, and ventilation; school furniture; the hygiene of eyesight and hearing; fatigue; physical defects; communicable diseases. Initial training in the application of tests and diagnostic methods. Terman's *Hygiene of the School Child*, Dresslar's *School Hygiene*; (2). Dr. RAPEER

Prerequisite: Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

S 16. Social Aspects of Education.—The need of a social point of view; social agencies and social forces in relation to the school; the refractive power of the school; the school as a determinant of public opinion. Readings, lectures, and discussions. (2). Professor COFFMAN

Prerequisite: Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet the requirement).

S 25. Educational Psychology.—The biological interpretation of the learning process; heredity in its relation to mental development; the psychology of habit; the acquisition of skill; memory and association; the transfer of training and the doctrine of formal discipline; recent investigations of the higher thought processes. Colvin's *Learning Process*. (2). Mr. MILLER

Prerequisite: Junior standing (but, in the discretion of the instructor, open to teachers who cannot meet this requirement).

Courses for Graduates and Advanced Undergraduates

***S 6. The Principles of High-School Education.**—The evolution of high schools and of the fundamental conceptions of secondary education; relation of the high school to the state system; its legal status; its articulation with the elementary school, the college, the technical schools, the community, and the home. The teaching staff, reorganization of curriculums, "controls" of construction, direction of student activities and the administration of vocational and moral guidance, school journalism, debating activities, athletics and high-school hygiene. (2 credits or ½ unit). Professor JOHNSTON

Prerequisite: Education 1, or equivalent. (High-school teachers and principals may in the discretion of the instructor be admitted to the course without this prerequisite).

***S 13. Educational Classics.**—The educational writings of Plato, Aristotle, Quintilian, Montaigne, Milton, Locke, Rousseau, Pestalozzi, Herbart, Froebel, Spencer, and others. (2 credits, ½ unit.)

Assistant Professor ANDERSON

Prerequisite: Education 2 (History of Education) or equivalent.

***S 20. Supervision.**—(For principals, superintendents, and supervisors.) The limitations, types, functions, standards, and devices of supervision; the use of objective scales in measuring the efficiency of teaching; qualifications and rating of teachers. Lectures, readings, special problems. (2 credits, ½ unit).

Professor COFFMAN

Prerequisite: Education 1 or equivalent. (Superintendents, principals, and supervisors may in the discretion of the instructor be admitted to the course without the prerequisite.)

***S 27. High School Curriculums.**—Bases of construction; principles of professional supervision; materials, text books and other teaching devices for modern secondary-school work; the psychology of the mental processes involved in selected high-school branches of study; framing of curriculums for typical cities and communities. (2 credits, $\frac{1}{2}$ unit). Professor JOHNSTON

Prerequisite: Education 1 or equivalent. (In the discretion of the instructor this course is open to high-school teachers and principals and superintendents without this requirement.)

***S 28. School Health Administration.**—Administration; typical forms of school health administration; sanitation; medical and dental inspection; the school physician and the school nurse; health records and reports. Lectures, readings, and reports. (2 credits, $\frac{1}{2}$ unit) (subject to approval of Executive Faculty of Graduate School). Dr. RAPEER

Prerequisite: Education 15 or equivalent preparation satisfactory to the instructor.

Courses for Graduates

***S 101. Seminar in Educational Theory.**—Educational values; determination of "minimal essentials" in elementary and secondary programs ($\frac{1}{4}$ unit) (subject to approval of Executive Faculty of Graduate School).

Professor BAGLEY

Prerequisite: Graduate standing and at least one course in the principles of education.

***S 104. Seminar in School Administration.**—Present tendencies in school systems of typical states and cities. Readings; reports; special problems. ($\frac{1}{4}$ unit). Professor COFFMAN

Prerequisite: Graduate standing.

***S 125. Advanced Educational Psychology.**—Monographic literature on instinct; habit and the acquisition of skill; memory and association. ($\frac{1}{4}$ unit).

Dr. RAPEER

Prerequisite: Graduate standing and at least one course in general educational psychology.

***S 141. Seminar in Secondary Education: Vocational Problems.**—Professional, polytechnic, commercial, industrial (or trade) and agricultural education and the household arts. Supervision of investigations by advanced students. ($\frac{1}{4}$ unit). Professor JOHNSTON

Prerequisite: Graduate standing.

Courses Not Carrying University Credit

A. Principles of Teaching.—The aim of education, the function of the school, types of school exercises (drill lessons, developmental lessons, lessons for appreciation, review lessons, study and recitation lessons), the art of questioning, class management, and school hygiene. *No university credit.* Mr. HALL-QUEST

B. Elementary Educational Psychology.—The meaning of "learning"; experience and heredity in relation of the problem of learning; the nature and classification of instincts; laws of habit-formation; sensation and perception with reference to their educational applications; memory and its laws; imagination and the higher thought processes. *No university credit.* Mr. HARLAN

C. Methods of Teaching in the Elementary School.—Forty lectures on the teaching of the principal subjects of the elementary program. *No university credit.* The tentative distribution of the lectures is as follows:

The Teaching of Reading (four lectures).	Professor COFFMAN
The Teaching of Geography (five lectures).	Professor CUSHING
The Teaching of Literature (five lectures).	Assistant Professor PAUL
The Teaching of Music (three lectures).	Assistant Professor SMITH
Manual Training and Handiwork in the Grades (two lectures).	Professor PARK
The Teaching of Arithmetic (five lectures).	Mr. MILLER
The Teaching of History and Civics (five lectures).	Professor BAGLEY
The Teaching of Drawing (three lectures).	Miss HILL
The Teaching of Composition and Language (five lectures).	Mr. HALL-QUEST

ELECTRICAL ENGINEERING

MORGAN BROOKS, Ph.B., M.E., *Professor*

ELLERY BURTON PAINE, M.S., E.E., *Associate Professor, Acting Head of Department*

EDWARD HARDENBERGH WALDO, A.B., M.S., M.E., *Assistant Professor*

PHILIP SHERIDAN BIEGLER, B.S., *Associate*

LEONARD VAUGHAN JAMES, M.S., E.E., *Associate*

IRA WILLIAM FISK, M.S., E.E., *Associate*

ABNER RICHARD KNIGHT, M.E., *Instructor*

CHARLES RUBY MOORE, B.S., *Instructor*

JOHN WILLIAMS DAVIS, B.S., *Instructor*

4. Elementary Electrical Engineering.—Electrical machinery; selection installation and operation; distribution of power; motor applications. *II; (2)*
Professor BROOKS

Prerequisite: Physics 1a-1b, 3a-3b; junior standing.

6. Alternating Currents.—(For mechanical engineers.) *I; (2).* Not given after 1914-15.
Professor BROOKS

Prerequisite: Electrical Engineering 25 or 16.

8. Electric Currents and Apparatus.—Direct and alternating current circuits and machines; storage batteries. (Especially for chemical engineers.) *II; (3).*
Professor BROOKS

Prerequisite: Physics 1a-1b, 3a-3b. Registration or credit in Mathematics 7
Registration in Electrical Engineering 68.

[11. Direct Current Apparatus.—Generators, motors, distribution circuits; storage batteries. (For mechanical engineers.) *I; (3).* Not given in 1914-15.

Prerequisite: Physics 1a-1b, 3a-3b, Mathematics 9.]

[12. Alternating Current Apparatus.—Generators and motors, transformers, distribution systems. (For mechanical engineers.) *II; (3).* Not given in 1914-15.
Associate Professor PAINE and others

Prerequisite: Electrical Engineering 11, 61.]

14. Alternating Current Apparatus.—Transformers and generators. *I*; (4). Associate Professor PAINE, Mr. JAMES, Mr. FISK
Prerequisite: Electrical Engineering 26, 76.

17. Alternating Current Apparatus.—Synchronous, induction, and commutator motors; rotary converters; distributed inductance and capacity; transient phenomena. *II*; (4). Associate Professor PAINE and others
Prerequisite: Electrical Engineering 14, 24.

24. Electrical Engineering Laboratory.—Advanced current testing. *I*; (2). Mr. BIEGLER, Mr. MOORE, Mr. DAVIS
Prerequisite: Electrical Engineering 76; registration in Electrical Engineering 14.

25. Direct Current Apparatus.—Laws of electric and magnetic circuits; construction and operation of direct current generators and motors. *I*; (4). Mr. FISKE, Mr. KNIGHT
Prerequisite: Physics 1a-1b, 3a-3b; Mathematics 9.

26. Alternating Currents.—A mathematical and graphical treatment of the principles of periodic currents; theory of the simple phenomena in transmission lines and transformers. *II*; (4).
Prerequisite: Electrical Engineering 25.

27. Electrical Engineering Laboratory.—Advanced alternating current testing. *II*; (2). Mr. BIEGLER, Mr. MOORE, Mr. DAVIS
Prerequisite: Electrical Engineering 24; registration in Electrical Engineering 17.

28. Electrical Engineering Laboratory.—Testing of dynamos and motors. (For students in municipal and sanitary engineering.) *I*; (1). Not given after 1914-15. Mr. BIEGLER
Prerequisite: Electrical Engineering 4.

29. Electrical Engineering Laboratory.—Alternating current operation and testing. (For students in mechanical engineering.) *II*; (2). Not given after 1914-15. Mr. MOORE
Prerequisite: Electrical Engineering 6.

55. Electrical Design.—Electromagnets and dynamos, direct and alternating; transformers. *I*; (2). Assistant Professor WALDO, Mr. KNIGHT
Prerequisite: Electrical Engineering 26; registration in Electrical Engineering 14.

56. Electrical Design.—Induction motors and converters. Power plant design. *II*; (4). Assistant Professor WALDO, Mr. KNIGHT
Prerequisite: Electrical Engineering 14.

[61. Direct Current Laboratory.—Circuits and machines. (For mechanical engineers). *I*; (1). Not given in 1914-15.
Prerequisite: Registration in Electrical Engineering 11.]

[62. Alternating Current Laboratory.—Alternating-current circuits and machines. (For mechanical engineers.) *II*; (1). Not given in 1914-15.
Prerequisites: Registration in Electrical Engineering 12.]

64. Electrical Engineering Laboratory.—Testing of dynamos and motors. *II*; (1). Mr. BIEGLER
Prerequisite: Registration in Electrical Engineering 4.

68. Electrical Engineering Laboratory.—Direct and alternating current circuits and machines. *II*; (1).

Prerequisite: Registration in Electrical Engineering 8.

71-72. Electrical Engineering Laboratory.—The construction of special apparatus or other work approved by the department. (Elective for juniors and seniors.) *I, II*; *(1 to 3). Mr. MOORE

75. Electrical Engineering Laboratory.—Direct current laboratory accompanying Electrical Engineering 25. *I*; (2). Mr. BIEGLER, Mr. DAVIS

Prerequisite: Registration in Electrical Engineering 25.

76. Electrical Engineering Laboratory.—Determination of the flux and E. M. F. waves of alternators. Alternating current circuits, instruments. *II*; (2). Mr. BIEGLER, Mr. DAVIS

Prerequisite: Electrical Engineering 25, 75; registration in Electrical Engineering 26.

90. Lighting.—Electric lamps and other illuminants, and their effective use; interior wiring; methods of distribution. (For architects.) *II (half semester only; see E. E. 92)*; (1). Professor BROOKS

Prerequisite: Junior standing.

92. Lighting and Wiring.—First half of semester same as E. E. 90. Further study of distribution, fusing, Underwriters' Rules. Motors. (For architectural engineers.) *II*; (2). Professor BROOKS

Prerequisite: Junior standing.

95-96. Seminar.—Electrical railroading; illumination; telegraphy; telephony; storage batteries; electric metallurgy. *I, II*; (1). Associate Professor PAINE

Prerequisite: Junior standing.

99. Thesis.—First semester, preliminary reading and investigation; second semester, completion. *II*; (3).

Courses for Graduates

Entrance upon graduate work in electrical engineering presupposes the full undergraduate course in that subject.

101. Advanced Course in Alternating Currents.—The theory of Transient Phenomena; polyphase circuits; measuring apparatus. *Twice a week; I, II*; (1½ units). Associate Professor PAINE

103. Electrical Design.—Plans for an electrical machine or apparatus of specified character; or for the arrangement of an electrical plant; or for the installation of such machinery or apparatus. *Twice a week; II*; (1 unit). Assistant Professor WALDO

104. Telegraphy and Telephony.—*Once a week; I, II*; (1 unit).

Professor BROOKS

105. Electrical Engineering Research.—Investigation of electrical phenomena, or tests of some electrical machine, or of a plant of such machines. *Twice a week; I, II*; (1 to 3 units). Associate Professor PAINE

106. Illumination.—*Once a week; I, II*; (1 unit).

Professor BROOKS

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

ENGINEERING

(See ARCHITECTURE, CIVIL ENGINEERING, DRAWING, ELECTRICAL ENGINEERING, MECHANICAL ENGINEERING, MECHANICS, MINING ENGINEERING, MUNICIPAL AND SANITARY ENGINEERING, PHYSICS; RAILWAY CIVIL ENGINEERING, RAILWAY ELECTRICAL ENGINEERING, AND RAILWAY MECHANICAL ENGINEERING.)

THE ENGLISH LANGUAGE AND LITERATURE

(Including RHETORIC and PUBLIC SPEAKING)

DANIEL KILHAM DODGE, Ph.D., *Professor*
 THOMAS ARKLE CLARK, B.L., *Professor*
 STUART PRATT SHERMAN, Ph.D., *Professor, and Chairman*
 EDWARD FULTON, Ph.D., *Associate Professor*
 EDWARD CHAUNCEY BALDWIN, Ph.D., *Assistant Professor*
 HARRY GILBERT PAUL, Ph.D., *Assistant Professor*
 FRANKLIN WILLIAM SCOTT, Ph.D., *Assistant Professor, Secretary*
 HARRIE STUART VEDDER JONES, Ph.D., *Assistant Professor*
 JACOB ZEITLIN, Ph.D., *Associate*
 CHARLES HENRY WOOLBERT, A.M., *Associate*
 HERBERT LESOURD CREEK, Ph.D., *Associate*
 CLARENCE VALENTINE BOYER, Ph.D., *Associate*
 GERTRUDE SCHOEPPERLE, Ph.D., *Associate*
 MARTHA JACKSON KYLE, A.M., *Instructor*
 GEORGE FRISBIE WHICHER, A.M., *Instructor*
 CLARISSA RINAKER, Ph.D., *Instructor*
 EASLEY STEPHEN JONES, A.M., *Instructor*
 MERVIN JAMES CURL, A.M., *Instructor*
 HARRISON MCJOHNSTON, A.B., *Instructor*
 HAROLD NEWCOMB HILLEBRAND, Ph.D., *Instructor*
 EARLE STANLEY ALDEN, A.M., *Instructor*
 ROBERT CALVIN WHITFORD, A.M., *Instructor*
 LYNN HAROLD HARRIS, Ph.D., *Instructor*
 RUSSELL OSBORNE STIDSTON, Ph.D., *Instructor*
 RALPH EARLE TIEJE, A.M., *Instructor*
 CARL SAWYER DOWNES, Ph.D., *Instructor*
 ROGER SHERMAN LOOMIS, A.M., B.Litt., *Tutor*
 SADA ANNIS HARBARGER, A.M., *Assistant*
 RUTH KELSO, A.M., *Assistant*
 WALTER ALBERT BUCHEN, A.M., *Assistant*
 LEW R SARETT, A.B., *Assistant*
 EMERSON GRANT SUTCLIFFE, A.B., *Assistant*
 THOMAS BLAINE STANLEY, A.B., *Assistant*
 RAYMOND EPHRAIM DIXON, A.M., *Assistant*
 CLYDE BYRON BECK, A.B., *Assistant*
 JAMES MANLEY PHELPS, A.B., *Assistant*

SUMMER SESSION ONLY

LANE COOPER, Ph.D., *Cornell University*
 *THACHER HOWLAND GUILD, A.M., *Associate*
 ARTHUR JERROLD TIEJE, Ph.D., *Instructor*

*Deceased, July 21, 1914.

Major

A student making English a major must take 20 hours in English in addition to Rhetoric 1 and the first semester of English 1 or English 10. These 20 hours must include at least 10 hours in English literature, at least 3 hours in composition, and at least 1 one-year course, or its equivalent, from the advanced group of courses.

A student must also take as one minor at least 20 hours in one foreign language, or in two foreign languages, or in one foreign language and philosophy, or in one foreign language and history.

Honors

Candidates for honors in English must offer:

1. Work in English amounting to 20 hours in addition to Rhetoric 1-2 and the first semester of English 1-2 or 10-11.

2. At least 1 one-year advanced course, which may be in either English literature or English composition.

3. A minimum of 15 hours in English literature in addition to the first semester of English 10-11, and a minimum of 5 hours in English composition in addition to Rhetoric 1-2.

4. Work aggregating 24 hours in two minor subjects, which must be in two foreign languages or in one foreign language and either history or philosophy. French 1a-1b and German 1 and 3 may not be counted toward the fulfillment of the minor requirements.

A. LITERATURE AND LANGUAGE

Elementary Courses

1-2. Survey of English Literature.—(Credit is not given for either semester separately, or for the course in addition to course 10-11 or course 20. Only one semester's work is credited toward a major in English.) *I, II*; (4).

Professor SHERMAN, Assistant Professor BALDWIN, and others

Prerequisite: A year's college work.

10-11. Introduction to Literature.—(*First semester.*) The Forms of Poetry. (*Second semester.*) The Forms of Prose Literature. (This course is intended only for those who expect to include a considerable amount of literature, in English or some other language, in their curriculum. Credit is not given for the course in addition to course 1-2 or course 20. Only one semester's work is credited toward a major in English. Credit is not given for the first semester separately.) *I, II*; (3).

Professor DODGE, Assistant Professor PAUL, and others

Prerequisite: The minimum entrance requirements in English.

12-13. American Literature.—(Credit is not given for either semester separately.) *I, II*; (2).

Assistant Professor PAUL

Prerequisite: English 1-2 or 10-11.

17. The English Language.—Its history; characteristics and usage of modern English. *I*; (3).

Associate Professor FULTON

Prerequisite: Rhetoric 1-2.

20. Chief English Writers.—(For those whose program admits of but one semester's work in English, and who therefore may not register for course 1. It is not accepted, like course 1, as a prerequisite for more advanced courses. Credit is not given for the course in addition to course 1-2 or course 10-11. *I* or *II*; (4). Dr. BOYER (in charge), Assistant Professor SCOTT and others
Prerequisite: A year's college work.

23. Introduction to Shakespeare.—*I* or *II*; (3). Professor SHERMAN
Prerequisite: English 1-2 or 10-11.

Intermediate Courses

Prerequisite: Eleven hours of English literature, or eight hours of English literature and eight hours of a foreign language.

21-22. Literary Study of the Bible.—Hebrew literature as an expression of the life of the race that produced it; the debt, both ethical and artistic, of modern life to ancient Hebrew thought. (Either semester may be taken separately.) *I, II*; (3). Assistant Professor BALDWIN

24. English Literature of the Victorian Period.—*II*; (3). Miss KYLE

29. English Literature from 1557 to 1688, Exclusive of the Drama.—*I*; (3). Assistant Professor BALDWIN

31. English Literature from 1688 to 1789.—*II*; (3).

Assistant Professor PAUL

32. The Greater English Critics of the 19th Century.—*II*; (3).

Associate Professor FULTON

33. English Literature from 1789 to 1837.—*I*; (3). Dr. ZEITLIN

Advanced Courses for Undergraduates and Graduates

Prerequisite: Sixteen hours of English literature. These courses, however, are open to any junior or senior with the approval of the instructor concerned.

3. The Poetry of Milton.—Origins, forms, artistic and ethical values; Milton's place in English literary history. *II*; (3). Assistant Professor BALDWIN

5. Shakespeare.—Intensive study of a few plays, with emphasis on *Hamlet*. *II*; (3). Professor DODGE

25-26. Chaucer and His Contemporaries.—(The first semester, dealing with Chaucer exclusively, may be taken for separate credit.) *I, II*; (3).

Assistant Professor JONES

8-9. Old English (Anglo-Saxon).—Grammar; prose; short poems; *Beowulf*. (The first semester may be taken separately.) *I, II*; (3).

Professor DODGE

27-28. Studies in the History of Journalism.—*I, II*; (2).

Assistant Professor SCOTT

41-42. Teachers' Course.—Methods of teaching English literature and composition in the high school. (Not credited toward advanced degrees, or toward a major in English. Either semester may be taken separately.) *I, II*; (2). Assistant Professor PAUL

18. Modern English Grammar.—Sentence structure and analysis; grammatical categories; English syntax. *II*; (3). Dr. ZEITLIN

35-36. The English Drama (exclusive of Shakespeare).—*(First semester):* from the beginning to 1600. *(Second semester):* from 1600 to 1700. (Either semester may be taken for separate credit.) *I, II; (3).*

Professor DODGE, Professor SHERMAN

38. The Arthurian Tradition in England.—Primitive elements; the historical Arthur; Celtic, French, and Italian influences; the tradition in England from the early romances to Arnold. *II; (3).*

Dr. SCHOEPPERLE

39. Introduction to the Literature of the Middle Ages.—European culture from the fourth century; the relation of English and continental literature, to the fourteenth century. *I; (3).*

Dr. CREEK

Courses for Graduates

101. Research in Special Periods.—Competent graduate students are encouraged to seek the advice and assistance of the department of English and to submit to the department plans for study in the language or literature of the periods mentioned below.

A. Anglo-Saxon language and literature.....Professor DODGE, Dr. ZEITLIN

B. Thirteenth and Fourteenth Centuries.....

Assistant Professor H. S. V. JONES

C. Sixteenth CenturyProfessor DODGE

D. Seventeenth CenturyAssistant Professor BALDWIN

E. Eighteenth Century.....Professor SHERMAN, Assistant Professor PAUL

F. Nineteenth Century...Professor SHERMAN, Associate Professor FULTON

108. The English Epic.—The 16th, 17th, and 18th Centuries, from the point of view of classical theory. *Twice a week. I, II; (1 unit).*

Associate Professor FULTON

109. German and Scandinavian Influences on English Literature of the Eighteenth and Nineteenth Centuries.—*Twice a week. I; (1 unit).*

Professor DODGE

110. Old English (Anglo-Saxon) Poetry.—*Twice a week. I, II; (1 unit).*

Professor DODGE

113. Historical Prose Syntax.—The forces, native and foreign, in the development of English prose sentence structure. *Twice a week. I, II; (1 unit).*

Dr. ZEITLIN

126. English Ballads and Metrical Romances.—*Twice a week. I, II; (1 unit).*

Assistant Professor JONES

135. Problems in American Literature.—*Twice a week. I, II; (1 unit).*

Assistant Professor PAUL

137. Nineteenth Century Prose Writers.—The relation of literature to social forces; the works of Mill, Carlyle, Newman, Ruskin, Arnold, and Pater. *Twice a week. I, II; (1 unit).*

Professor SHERMAN

138. Old Irish.—Selections from the glosses and from the *Táin bo Cualnge*; lectures on Old and Middle Irish literature. *Twice a week. I; (1 unit).*

Dr. SCHOEPPERLE

B. RHETORIC

Elementary Courses

1-2. *Rhetoric and Themes.—Required for students in the Colleges of Liberal Arts and Sciences, Engineering, and Agriculture. *I, II; (3).*

Assistant Professor SCOTT in charge

Prerequisite: The minimum entrance requirements in English.

For the benefit of those whose course is irregular, a limited number of sections in each semester take up the work of the other semester. The course is not counted toward a major in English.

Intermediate Courses

3. English Composition.—Short themes, with an occasional long theme. *I or II; (3).*

Dr. ZEITLIN, Miss KYLE, Mr. CURL

Prerequisite: Rhetoric 1-2.

6. Narrative Composition.—Short story writing. (Intended for those who have some aptitude for literary work.) *I; (3).*

Mr. CURL

Prerequisite: Two years of college work and the consent of the instructor.

10. Business Writing.—Business correspondence; incidental writing and summaries. Lectures; discussion. (In the second semester open only to those taking a business course, except by special permission. Not counted toward a major in English.) *I or II; (2).*

Mr. McJOHNSTON, Mr. WARNOCK, Mr. STANLEY

Prerequisite: Rhetoric 1-2.

12-13. Newspaper Writing.—News writing; interviewing, and reporting; news correspondence; news form; news value; typography; proof reading. *I, II; (3).*

Mr. BUCHEN

Prerequisite: Rhetoric 1-2.

19. Agricultural News Writing.—Class exercises; lectures; gathering and preparing material for agricultural papers. *II; (3).*

Assistant Professor SCOTT

Prerequisite: Junior or senior standing in the College of Agriculture; Rhetoric 1-2.

21. Sales Correspondence.—The principles underlying successful sales letter writing; planning the campaign; the follow-up letter; analysis of markets. *I; (2).*

Mr. McJOHNSTON

Prerequisite: Rhetoric 10. Open to students in business administration only.

22. Summarizing and Abstracting.—Summarizing, briefing, and making reports; abstracts of correspondence on file; summarizing of commercial and economic data. *II; (2).*

Mr. McJOHNSTON

Prerequisite: Rhetoric 10. Open to students in business administration only.

*Students who show by examination a proficiency in composition sufficient to qualify them for Rhetoric 2 may be excused from the first semester's work. The examination for those desirous of meeting this qualification will be given at 7 p. m., September 20.

Students who show in the first two weeks that they are not prepared to do composition work of collegiate grade will be assigned to a special course parallel to Rhetoric 1, but involving additional work.

25-26. Senior Conferences (Business Courses).—Each senior will present to the instructor all the written papers presented during the year in his different courses for review and criticism by the instructor. Rewriting of such papers may be required if, in the opinion of the instructor, they are open to serious criticism. (Required of all seniors in the Courses in Business Administration.) *I, II; (1).*

Mr. McJOHNSTON

Advanced Courses for Undergraduates and Graduates

8. Interpretive Reading.—(For advanced students and teachers. Credit is given only to students registered also in some advanced course in literature, such as English 3, 5 or 41-42. Not credited toward advanced degrees.) *II; (1).*

Mr. WOOLBERT

Prerequisite: Public Speaking 1.

15-16. Advanced Newspaper Writing.—Problems in reporting; application of principles of history, economics, and political science to current public events; editing; editorial writing. *I, II; (3).*

Assistant Professor SCOTT

Prerequisite: Rhetoric 12-13 or the consent of the instructor.

17. Advanced Composition.—Practise writing, study of structure; criticism of current periodical literature; the developing of material for reports and magazine articles. (Open to a limited number of students and only on recommendation.) *II; (3).*

Mr. WHICHER

Prerequisite: Two years of college work.

C. PUBLIC SPEAKING

1-2. Oral Expression.—Elocution and platform manner; effective public address; the interpretation of forensic and dramatic literature. *I, II; (2).*

Mr. WOOLBERT, Mr. SARETT, Mr. PHELPS

Prerequisite: Rhetoric 1-2.

3-4. Argumentation and Debate.—Argumentative discourse; methods of meeting an opponent; a study of (1) methods of selecting and arranging material for forensic contests, (2) methods of attack and refutation, and (3) practise on the floor in actual debate. *I, II; (3).*

Mr. WOOLBERT, Mr. SARETT

Prerequisite: Public Speaking 1-2.

5-6. Forms of Public Address.—Methods of composition and delivery, the psychology of persuasion, including (1) the sources of belief, (2) the steps necessary in inducing response, (3) the processes of analysis and synthesis, (4) the laws governing attention, interest, and impulse, and (5) the study of tendencies that actuate men as individuals and as crowds. *I, II; (2).*

Mr. WOOLBERT

7-8. A Study of Orators and Oratory.—The lives, times, and speeches of distinguished speakers; required readings and reports, both written and oral; discussions; topical speeches and declamations, *I, II; (2).*

Mr. WOOLBERT

Prerequisite: Public Speaking 1-2.

SUMMER SESSION COURSES

A—Literature and Language

S A. Preparation for the State Examination in English.—Nineteenth century literature, the laws of versification and the principles of composition as taught in secondary schools. *No university credit.*

Dr. TIEJE

S 1a. Survey of English Literature.—From Chaucer to Milton. Lectures, readings, and conferences. *Century Readings in English Literature* (Part 1). (2.) Dr. CREEK

Prerequisite: Entrance credit in English.

S 1b. Survey of English Literature.—From Dryden to Burns. Lectures, readings, and conferences. *Century Readings in English Literature* (Part 1). (2.) Mr. BUCHEN

Prerequisite: Entrance credit in English.

S 16. American Literature.—Bryant, Irving, Cooper, Hawthorne, Emerson, Poe, Longfellow, Whittier, Lowell. Lectures, discussions, readings, and reports. *Page's Chief American Poets*. (2.) Assistant Professor PAUL

Prerequisite: One year of college English or an equivalent.

S 17. The English Language.—Its history, and relations to other languages; characteristics and usage of modern English. Emerson's *Brief History of the English Language*. (2.) Professor DODGE

Prerequisite: One year of college English or an equivalent.

***S 5. Shakespeare.**—Selected plays, with special emphasis on *Hamlet*. Lectures and discussions. Neilson's *Shakespeare* (Cambridge Poets). (2.) Professor DODGE

Prerequisite: Two years of college work or an equivalent.

***S 45. Modern Drama.**—Significant movements and plays of the nineteenth century; continental drama in translation. Lectures and discussions. Mr. GUILD

Prerequisite: Two years of college work or an equivalent.

S 15. English for Teachers.—Literature and fine art; modern literature in relation to the ancient classics; literary types; the problem of teaching literature composition; private reading and study on the part of teachers; the library of the teacher of English. Lectures, readings, and discussions. (2½). Assistant Professor COOPER

Prerequisite: The consent of the instructor.

***S 3. Introduction to Milton.**—Preliminary reading; selections. Lectures, discussions, and original investigations. *The Oxford Milton*. (2½). Assistant Professor COOPER

Prerequisite: Two years of college English or an equivalent.

***S 110. Old English (Anglo Saxon) Poetry.**—Readings and individual investigations. Professor DODGE

Prerequisite: English 8 or a similar introductory course in Old English.

***S 136. The Rise of Classicism.**—The beginnings of classicism in Italy, France and England; its development in England between 1660 and 1726. Lectures, readings, investigation of assigned topics. Assistant Professor PAUL

Prerequisite: Graduate standing or the permission of the instructor.

B—Rhetoric

S 1a. Rhetoric and Themes.—Structure; grammar; punctuation; the sentence; the reasoning processes. Two short themes a week and an occasional long theme. Oral and written exercises. Woolley's *Handbook of Composition* and Scott and Denney's *Paragraph Writing*. (3.) Mr. BUCHEN

Prerequisite: Entrance credit in English.

S 1b. Rhetoric and Themes.—Argumentation, narration, and description. Two short themes a week, with one or two long briefs and long arguments. Oral and written exercises. Scott and Denney's *Paragraph Writing*. (3.)

Prerequisite: Entrance credit in English.

Dr. CREEK

S 18. Oral English.—Oral interpretation as an aid in the study and teaching of English; oral composition, school dramatics, and other problems of the teacher. (2.)

Mr. GUILD

Prerequisite: The consent of the instructor.

S 20. Advanced Composition.—Long expository themes; Steeves and Ristine's *Representative Essays in Modern Thought*. (2.)

Dr. TIEJE

Prerequisite: The consent of the instructor.

ENTOMOLOGY

(See also BOTANY, PHYSIOLOGY, and ZOOLOGY.)

STEPHEN ALFRED FORBES, Ph.D., LL.D., *Professor*

ALEXANDER DYER MACGILLIVRAY, Ph.D., *Associate Professor*

JUSTUS WATSON FOLSOM, D.Sc., *Assistant Professor*

ROBERT DOUGLAS GLASGOW, Ph.D., *Instructor*

ALVAH PETERSON, A.M., *Assistant*

Entomology as taught at the University is distinctly differentiated from the work in zoology. Students preparing for service as economic entomologists should take as many of the courses offered as possible, including especially 2, 3, 4, 7, 8, 14, and 108. Those preparing for the teaching of zoology should take either 2 and 4 or 3 and 4, or all three of these courses.

1a-1b. Elementary Entomology.—Lectures; laboratory; field work; (Open to all students.) *I, II; (2).* Assistant Professor FOLSOM, Dr. GLASGOW

2. General Entomology.—Field entomology, morphological and physiological entomology; the collection and preservation of specimens; typical insects; the adaptive structures and their utilities. (This course and course 3 form a year's work, covering the whole field. Either may be taken independently of the other.) *I; (5).*

Assistant Professor FOLSOM, Dr. GLASGOW

Prerequisite: Entomology 1a-1b, or 4a-4b or equivalent.

3. General Entomology.—The classification and determination of insects; life histories in the insectary and by field observation; ecological relations of insects. *II; (5).*

Assistant Professor FOLSOM, Dr. GLASGOW

Prerequisite: Entomology 1a-1b, or 4a-4b, or equivalent.

4a-4b. Introduction to Economic Entomology.—Lectures; field work; laboratory. *Section A* for students of agriculture. *I; first half; (2).* *Section B*, for students of horticulture. *II; second half; (3).*

Assistant Professor FOLSOM, Dr. GLASGOW

5. Introduction to Research.—Preparation for thesis work. Library, language, manuscript, and advanced laboratory work on assigned topics. (A three-hour course for one semester is required as a preparation for thesis work.) *I or II; *(3 to 5).*

Associate Professor MACGILLIVRAY, Assistant Professor FOLSOM

Prerequisite: Entomology 2, 3; or 15, 7.

*In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

6a-6b. Thesis Investigation.—Subjects selected during the junior year. Three hours a day given to investigation, under the supervision of an instructor, during the senior year. *I, II; (5).*

Associate Professor MACGILLIVRAY, Assistant Professor FOLSOM

7. Systematic Entomology.—External anatomy of insects; terminology of the parts; identification of specimens. *I or II; (5).*

Associate Professor MACGILLIVRAY

Prerequisite: Entomology 2, or 15.

8a-8b. Advanced Economic Entomology.—Assigned problems. Field laboratory, insectary, library, and manuscript work, with practise in the special operations of economic entomology. (Intended primarily to prepare students for service as entomologists in experiment stations and other state and government positions. Agronomy 7 and Horticulture 1, 2 and 3 should also be taken as a part of this preparation.) *I, II; (3).*

Assistant Professor FOLSOM, Dr. GLASGOW

Prerequisite: Entomology 4a-4b, 2, 3.

9. Advanced Systematic Entomology.—The identification of the characters upon which genera and species are based. *I or II; (5).*

Associate Professor MACGILLIVRAY

Prerequisite: Entomology 2 or 15, and 7.

10. Taxonomy of Immature Insects.—*I; (5).*

Associate Professor MACGILLIVRAY

Prerequisite: Entomology 2 or 15, and 7.

11. Classification of the Coccidae.—Methods of preparing scale insects for study, the identification of genera and species, and discussion of their morphology, metamorphosis and phylogeny. *II; (5).*

Associate Professor MACGILLIVRAY

Prerequisite: Entomology 2 or 15, and 7.

12a-12b. Seminar.—Reports and discussion upon assigned topics; presentation and discussion of recent entomological publications, and of results of personal research. *I, II; (1).*

Prerequisite: One year of entomological work.

13. Medical Entomology.—Insects and the transmission of disease; methods of control; prevention. (Primarily for advanced students preparing for medicine.) *I or II; (3).*

Assistant Professor FOLSOM

Prerequisite: Zoology 3 or its equivalent in microscopical technique.

14. Advanced Economic Entomology.—Personal work under direction on assigned problems in economic entomology, intended to prepare advanced students for immediate service as state and government entomologists. Advantage will be taken of the operations and practical problems of the State Entomologist's office so far as available. *I or II, and six weeks of summer vacation.*

Prerequisite: Courses in elementary and advanced economic entomology, and in systematic entomology.

15. Elementary Systematic Entomology.—Lectures on the characteristics of the orders, suborders, and more important families; habits of representative species; field collections and laboratory studies on the anatomy and classification of insects. *I; (5).*

Associate Professor MACGILLIVRAY

16a-16b. Apiculture.—Bee-keeping. Practical operations, experiments, and collateral reading. *I, II; (1).* Assistant Professor FOLSOM

NOTE.—16a and 16b may be taken separately. Both will be given each semester.

Courses for Graduates

The prerequisite for graduate work in entomology is one year's work in biological courses, including an equivalent of either Zoology 1 or Entomology 1 or 4. Entrance upon major work in entomology requires the equivalent of Entomology 2 and 3.

Graduate students who have had at least one year of college work in biological courses may take for graduate credit any of the preceding courses except 1, 4, and 6. The following courses are open to graduate students only.

102. Research in the Morphology and Embryology of Insects.—*Twice a week. I, II; (1 or 2 units).* Assistant Professor FOLSOM

103. Research in Faunistic and Ecological Entomology.—*Once or twice a week; I, II; (1 or 2 units).* Professor FORBES

107. Systematic Entomology.—*Five times a week; I, II; (1 or 2 units).* Associate Professor MACGILLIVRAY

108. Research in Economic Entomology.—*Once or twice a week; I, II; (1 or 2 units).* Professor FORBES

109. Research in Systematic Entomology.—*Twice a week; I, II; (1 or 2 units).* Associate Professor MACGILLIVRAY

SUMMER SESSION COURSES

S 1. General Field and Laboratory Course.—For high-school teachers. Lectures, laboratory studies, and field observations. Folsom's *Entomology with Reference to its Biological and Economic Aspects.* (2).

Assistant Professor FOLSOM

***S 2. Advanced Course.**—Several lines of advanced entomological study (2 or 3). Assistant Professor FOLSOM

S 3. Economic Entomology.—Activities and control of injurious insects. Laboratory; field trips; lectures. (3.) Assistant Professor FOLSOM
Equivalent: Entomology 4.

***S 4. Advanced Economic Entomology.**—Problems to prepare advanced students for service as state and government entomologists. Study of the current operations of the State Entomologist's Office. (3.)

Professor FORBES, Assistant Professor FOLSOM

Prerequisite: 15 hours' credit in general and economic entomology.

FINE ARTS

(See ART AND DESIGN and MUSIC. Attention is called also to the courses in ESTHETICS offered by the departments of PHILOSOPHY, EDUCATION, ARCHITECTURE, and HOUSEHOLD SCIENCE.)

FLORICULTURE

(See HORTICULTURE.)

FRENCH

(See ROMANCE LANGUAGES AND LITERATURE.)

GEOLOGY

(Including MINERALOGY, PALEONTOLOGY, and PHYSICAL GEOGRAPHY. For Summer Session Courses, see PHYSIOGRAPHY.)

CHARLES WESLEY ROLFE, M.S., *Professor*
 WILLIAM SHIRLEY BAYLEY, Ph.D., *Professor*
 THOMAS EDMUND SAVAGE, Ph.D., *Assistant Professor*
 JOHN LYON RICH, Ph.D., *Instructor*
 CLARENCE SAMUEL ROSS, A.B., *Assistant*
 MASON K READ, A.B., *Assistant*
 JAMES STORER, A.M., *Assistant*
 HENRY METHUSALEM DUBOIS, A.M., *Assistant*

NOTE.—The undergraduate courses offered by the department of geology are grouped as follows: A. Geology, courses 1-4, 12, 13a, 13b, 15, 19, 21, 22, 26a, 26b. B. Stratigraphy, courses 1, 1a, 9, 15, 16, 17, 21, 22. C. Mineralogy, courses 2, 5, 5a, 6, 7. D. Physiography, courses 8, 10, 11, 14, 23, 24, 55.

NOTE.—Credit is given in only one of the following courses: 1, 3, 12, 13a, 13b.

1. Dynamic and Structural Geology.—The agents and processes involved in the development of the earth's present features. Lectures; laboratory. *I*; (5). Professor ROLFE and assistant

Prerequisite: Chemistry 1 or an equivalent.

1a. Historical Geology.—The evolution of the earth and its life. Lectures; laboratory work. (Continuing course 1 and introducing courses 9 and 16.) *II*; (5). Professor SAVAGE

Prerequisite: Geology 1 or 3.

2. Economic Geology.—Minerals and rocks of economic importance, especially those of North America. Lectures; laboratory. *II*; (3).

Professor BAYLEY

Prerequisite: Geology 5 and 1 and 1a, or 13a and 13b.

3. General Geology.—Mineralogy; dynamic, historic, and economic geology; minerals; rocks; contour maps; fossils. Recitations; laboratory. (For students who wish to devote but one semester to geology.) *I* or *II*; (5).

Professor ROLFE

4. Thesis Course.—Field or laboratory problems; reports; maps, sections and figures based on observations. *II*; (5).

Professor ROLFE, Professor BAYLEY, Assistant Professor SAVAGE

5. Mineralogy.—Ores and minerals of scientific importance; crystallography; characteristics of 125 of the most important minerals; blow pipe analysis. Lectures; laboratory. *I*; (5). Professor BAYLEY

Prerequisite: Chemistry 1, 2, 3.

5a. Mineralogy.—The silicates. Lectures and laboratory. *II*; (3).

Professor BAYLEY

Prerequisite: Geology 5.

8. Physiography of Europe.—Physiographic features of Europe; climate; resources; the influence of geographic factors on industries and distribution of population. *II*; (3). Dr. RICH

Prerequisite: Geology 23 and 14.

10. Physiography of South and Central America.—A regional study; physiography, climate; resources. *II*; (3). Dr. RICH

Prerequisite: Geology 23 and 14.

11. Physiography of North America.—Typical physiographic provinces of North America; the United States. Lectures, readings, and maps. *I*; (3). Dr. RICH

Prerequisite: Geology 23 and 14.

12. Geology of Soils.—Classes of soils; mineral compositions; physical characteristics; transformations. (For students of agriculture and those interested in plant growth.) *II*; (5). Professor ROLFE

Prerequisite: Chemistry 1 or an equivalent.

13a. Engineering Geology.—Mineralogy and lithology. Open only to students in Engineering and Ceramics. Lectures; laboratory. *I*; (3). Professor BAYLEY

13b. Engineering Geology.—Dynamic and structural geology. Open only to students in Engineering and Ceramics. Lectures; laboratory. *II*; (3). Professor BAYLEY

14. Meteorology.—The heating and cooling, pressure, circulation, and moisture of the atmosphere; storms, and storm and weather forecasting; rainfall, climate. (Course 14 should be taken by those who intend to do more than the most elementary work in geography, and should be taken with Economics 26 by students of commerce.) *I*; (3). Dr. RICH

[19. **Field Geology.**—Not given in 1914-1915.]

21. Geology of Coal.—Origin; age, distribution, and stratigraphy of the deposits of North America, with emphasis on the Illinois or Eastern Interior basin. *I*; (2). Professor SAVAGE

Prerequisite: Geology 13b or an equivalent.

22. Organic Evolution.—The evolution of plant and animal forms as indicated by the fossil record. *II*; (3). Professor SAVAGE

Prerequisite: Geology 1a, or one semester of zoology or botany.

23. Physiography of the Lands.—Land forms; origin, development, and classification; the relation between surface forms and rock composition and structure; the influence of climate on land forms. This course follows Geology 3 and presupposes a knowledge of the principal geologic processes. *II*; (5). Dr. RICH

Prerequisite: Geology 3 or 13a and 13b or 1.

24. Physiographic Interpretations.—The application of physiographic principles to the interpretation of recent earth history; erosion planes; drainage modifications; physiographic indications of climatic fluctuations. This course naturally follows Geology 23, but requires in addition a knowledge of stratigraphic geology. *I*; (3). Dr. RICH

Prerequisite: Geology 23 and 1a.

[26a-26b. **Seminar.**—Weekly meetings, reports, and discussions of the current literature of geology, mineralogy, and physiography. Open to all students registered in the department; credit will be given only to those having 10 hours of completed work in geology. *I, II; (1).* Not given 1914-15.]

Surveying for Geological Students.—*I; (3).* (See Civil Engineering 33.)

Topographical Surveying for Geological Students.—*II; (3).* (See Civil Engineering 34.)

Courses for Advanced Undergraduates and Graduates

6. Physical and Optical Mineralogy.—Introduction to petrography. The physical and optical properties of minerals with reference to symmetry. Polarized light and its practical use in identifying the rock-forming materials. *I; (3).*

Professor BAYLEY

Prerequisite: Geology 5, 5a.

7. Petrography.—The principles of mineralogy applied to the study of rocks. Lectures on origin and classification; laboratory. *II; (3).*

Professor BAYLEY

Prerequisite: Geology 6.

9. Paleontology.—Invertebrate fossils, classification and relationships. Identification of the fossils; literature of the subject. *I; (5).* Professor SAVAGE

Prerequisite: Geology 1a; recommended: 1 year of botany or zoology.

15. Structural Geology.—Arrangement and distribution of the rocks forming the earth's crust; mountains; faults; folds; other diastrophic phenomena. *I; (3).*

Professor BAYLEY

Prerequisite: Geology 1a.

16. Stratigraphy.—Principles of classification of rock formations, of the methods and criteria employed in their correlation, of the index fossils of the successive geologic formations and their distribution, and of their use in the interpretation of geological provinces. *II; (5).*

Professor SAVAGE

Prerequisite: Geology 9.

17. Principles of Stratigraphy.—Sedimentary rocks and associated deposits; kinds; composition; origin; mode of occurrence; geologic interpretation. *I; (5).*

Professor SAVAGE

Prerequisite: Geology 16.

[25. Physiography of the Mississippi Valley.—The physiography of the Mississippi Valley, with field trips to southern Illinois, eastern Missouri, the Baraboo Ridges of Wisconsin, or the Lexington dome of Kentucky. *II; (3).* Not given in 1914-1915; to be given in 1915-1916.

Prerequisite: Geology 24 or an equivalent, and senior or graduate standing.]

Courses for Graduates

The first prerequisite for graduate work in Geology is the equivalent of the complete undergraduate offerings in that branch of the subject in which specialization is desired. Those who wish to specialize in paleontology should have, in addition, at least an elementary knowledge of systematic zoology; those who wish physical geography should have a knowledge of general physics and chemistry; and those who expect to pursue work in petrography and economic geology should be well grounded in general physics, inorganic chemistry, and the elements of physical chemistry. All graduate students should be sufficiently

acquainted with German and French to be able to read the journals printed in these languages.

101. Advanced Crystallography.—Methods used in measuring, prospecting, and calculating crystal forms and determining the physical properties of crystallized bodies. *Three to five times a week. I, II; (1 unit).*

Professor BAYLEY

102. Petrography.—The igneous and fragmental rocks; identification of types, classification and relationships. Lectures; laboratory. *Twice a week; I, II; (1 unit).*

Professor BAYLEY

103. The Crystalline Schists and Other Metamorphic Rocks.—Processes of metamorphism. Lectures; laboratory. *Twice a week; I, II; (1 unit).*

Professor BAYLEY

105. Invertebrate Paleontology.—Invertebrate fossils, or the fossils of a special geological system; their geographic distribution and geologic range with reference to stratigraphy. Largely individual work. *One to three times a week; I, II; (1 unit).*

Professor SAVAGE

106. Areal and Stratigraphic Geology.—A systematic study of the geology and paleontology of a selected area in Illinois. A report on the geology of the region, based on the data collected in the field. *One to three times a week; I, II; (1-2 units).*

Professor SAVAGE

107. Areal and Structural Geology.—Individual work on some area exhibiting important structural or economic features. *Once a week; I, II; (2 units).*

Professor BAYLEY

124. Advanced Physiography.—Individual work on field problems; study and discussion of the literature of physiography and geomorphology. *One to three times a week; I, II; (1 unit).*

Dr. RICH

GERMANIC LANGUAGES AND LITERATURE

(Including SCANDINAVIAN.)

JULIUS GOEBEL, Ph.D., *Professor*

OTTO EDUARD LESSING, Ph.D., *Professor*

GEORGE TOBIAS FLOM, Ph.D., *Associate Professor, Scandinavian*

GEORGE HENRY MEYER, A.M., *Assistant Professor*

NEIL CONWELL BROOKS, Ph.D., *Assistant Professor*

LEONARD BLOOMFIELD, Ph.D., *Assistant Professor, Comparative Philology*

DAISY LUANA BLAISDELL, A.M., *Instructor*

CHARLES MARSHALL POOR, Ph.D., *Instructor*

CHARLES ALLYN WILLIAMS, Ph.D., *Instructor*

ARMIN HAJAMAN KOLLER, Ph.D., *Instructor*

PHILIP STEPHAN BARTO, Ph.D., *Instructor*

ALEXANDER GREEN, Ph.D., *Instructor*

ADOLF EDUARD ZUCKER, A.M., *Assistant*

GEORGE WASHINGTON SPINDLER, A.M., *Assistant*

SUMMER SESSION ONLY

FELIX EMIL HELD, Ph.D., *Assistant*

A. GERMAN

Honors

Candidates for honors in German must offer:

1. A minor of at least 12 hours in some other language; if this be English it must be exclusive of English 1 and work in Rhetoric; if it be French or Spanish it must be exclusive of the first year's work.
2. A minor of at least 12 hours in any one of the other humanities, provided that the courses chosen contribute in a reasonable degree to the student's knowledge of European civilization. In order to be sure that the work offered will be accepted as fulfilling this general purpose, students are urged to consult with the department in planning their work in their minor subjects.
3. A general knowledge of European history, such as is gained from History 1, or an equivalent course.
4. An acceptable thesis; it may be one written in connection with some course.

First-Year Courses

1. Elementary Course.—Grammar and easy reading for beginners. (One section is offered in the second semester for students who enter the University in the second semester.) *I*; (4).

Assistant Professor MEYER, Assistant Professor BROOKS, Assistant Professor BLOOMFIELD and others

2. Narrative and Descriptive Prose.—Grammar and reading. *I*; (4).

Dr. POOR, Dr. KOLLER, Dr. GREEN, Mr. SPINDLER

Prerequisite: One year of high school of German or German S 1.

3. Narrative and Descriptive Prose.—Grammar and reading. (Continuation of German 1.) *II*; (4).

Assistant Professor MEYER, Assistant Professor BROOKS, Assistant Professor BLOOMFIELD and others

Prerequisite: German 1.

4. Descriptive and Historical Prose.—Selections from standard writers; sight reading; prose composition. *I* or *II*; (4).

Miss BLAISDELL, Dr. POOR, Dr. WILLIAMS, Dr. KOLLER, Dr. BARTO, Dr. GREEN, Mr. ZUCKER

Prerequisite: German 2, or 3, or two years of high school German.

5. Introduction to the Classics.—Schiller's *Jungfrau von Orleans*; Goethe's *Hermann und Dorothea*; or others of the classics. Prose composition. *I* or *II*; (4).

Miss BLAISDELL, Dr. POOR, Dr. WILLIAMS, Dr. KOLLER

Prerequisite: German 4, or three years of high school German.

6. Scientific Prose.—Rapid reading of scientific works. (Parallel with 5. Students may not take both 5 and 6 for more than a total of four hours' credit without special permission of department.) *II*; (4).

Dr. BARTO, Dr. GREEN, Mr. ZUCKER

Prerequisite: German 4, or three years of high school German.

12. Newspaper Reading.—Daily reading of newspapers. Oral and written composition based upon the reading. Conversation. (Parallel with 5 and 6. Not open to students who have had 5 to 6 or any more advanced course.) *II*; (4).

Mr. ZUCKER

Prerequisite: German 4 or three years of high school German, and the consent of the instructor.

Third-Year Courses

NOTE.—Not more than ten hours of these courses may be counted towards a major without the approval of the department.

7. **Modern Fiction.**—(Intended primarily for students who take 5 in the first semester. Not open to those who have had any course more advanced than 5.) II; (3). Dr. KOLLER, Dr. GREEN

Prerequisite: German 5, or equivalent.

10. **Introductory Goethe Course.**—Works illustrating different periods in Goethe's development: *Goetz von Berlichingen*; *Egmont*; *Iphigenie auf Tauris*; selections from *Dichtung und Wahrheit*. II; (3).

Assistant Professor MEYER, Assistant Professor BROOKS

Prerequisite: German 14, or 16, or 24, or 28a.

14. **Introductory Schiller Course.**—Works illustrating different periods in Schiller's development: Lyrics and Ballads; *Kabale und Liebe*; *Braut von Messina*. I; (3). Assistant Professor BROOKS, Miss BLAISDELL

Prerequisite: German 5, or equivalent.

16. **Elementary Prose Composition.**—I or II; (2).

Dr. POOR, Dr. WILLIAMS, Dr. GREEN

Prerequisite: German 5, or equivalent.

17. **Intermediate Prose Composition.**—II; (3).

Assistant Professor BLOOMFIELD, Dr. POOR

Prerequisite: German 16.

24. **Modern Drama.**—Rapid reading of dramas by Grillparzer, Hebbel, Hauptmann, and others. I; (3). Assistant Professor BLOOMFIELD

Prerequisite: German 5, or equivalent.

28a-28b. **German Lyrics.**—The form, development, and different types of the lyric. The chief lyric poets of the classical period. (Not open to freshmen.) I, II; (2). Assistant Professor MEYER

Prerequisite: German 5, or equivalent.

Primarily Fourth-Year Courses

NOTE.—Courses 11, 19, 26, 29, and 31 are especially recommended to all candidates for graduate scholarships in German; the same courses, together with 25, are recommended to seniors who expect to teach German.

8. **Schiller.**—The life of Schiller; *Wallenstein* and other selections. II; (3). Professor LESSING

Prerequisite: Three years of college German, or equivalent.

11. **German Literature After the Reformation.**—Lectures; recitations; reports on collateral reading. II; (3). Professor LESSING

Prerequisite: German 26.

[19a-19b. **Goethe's Faust.**—The Faust legend and early Faust books and plays; the genesis of Goethe's *Faust*; reading of both parts. Not given 1914-15. I, II; (2). Professor GOEBEL]

25. **Teachers' Course.**—Methods; examination of text-books. (Open to seniors and special students who have 20 hours' credit in German.) II; (2).

Miss BLAISDELL

Prerequisite: German 29a or equivalent; completion of or registration in Education 1 or equivalent.

26. German Literature to the End of the Reformation.—Lectures, recitations; reports on assigned reading. *I*; (3). Professor LESSING

Prerequisite: German 10, or 24, or 28.

[27. Lessing.—The life of Lessing; *Nathan der Weise*; *Emilia Galotti*, and other selections. *I*; (3). Not given, 1914-15. Professor LESSING

Prerequisite: Three years of college German, or equivalent.]

29a-29b. Advanced Prose Composition.—Themes on Germany and German life, based on reading, discussed in German. *I, II*; (3). Dr. KOLLER

Prerequisite: German 17.

30a-30b. Thesis Course.—(Intended primarily for candidates for honors in German, but open to other seniors.) *I, II*; *(1 or 2).

Professor GOEBEL and other members of the department

Prerequisite: Senior standing in College, and three years of college German or equivalent.

31. Middle High German.—*I*; (2). Professor GOEBEL.

Prerequisite: Senior or graduate standing; three years of college German.

[32.—History of German Civilization.—Readings; lectures; discussions. Not given 1914-15. *I*; (3). Professor LESSING]

39a-39b. Goethe and Schiller.—Interpretation of Goethe's poems. Goethe's *Tasso*; Schiller's *Ueber naive und sentimentalische Dichtung*. *I, II*; (2). Professor GOEBEL

Prerequisite: Three years of college German; for the second semester, German 39a or the consent of the instructor.

Courses for Graduates

Students desiring to take German as a major are expected to have completed a four years' course of undergraduate study in German, corresponding to the four year's course at this University. They are expected to be familiar with the principal works of the writers of the classical and modern periods of German literature, to show a general knowledge of the history of German literature, and to be able to follow lectures in the German language.

Of collateral subjects, a reading knowledge of Latin and French is required. It is desirable that candidates for the degree of Ph. D. have some knowledge of Greek. All students are expected to have had a course in German history.

101. Seminar in Germanic Philology.—Training in original research; results of value may be published in the *Journal of English and Germanic Philology*. *Once a week*; *I, II*; (1 unit). Professor GOEBEL

[103. Introduction to the Historical Study of the Germanic Languages.—History of German Philology; comparative grammar of the Old Germanic dialects. Lectures; discussions of special topics. Not given, 1914-15. *Twice a week*; *II*; (1 unit). Professor GOEBEL]

104. Gothic.—Grammar and literature. *Twice a week*; *I*; (1 unit).

Professor GOEBEL

105. Old High German.—Grammar and interpretation of the oldest literary documents. *Three times a week*; *II*; (1 unit). Dr. WILLIAMS

*In registering for a course with variable credit hours, a student must put down on his study-list, not the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

109. Goethe's and Schiller's Philosophy.—*Twice a week; I, II; (1 unit).*

Professor GOEBEL

110. Early German Drama.—Drama up to the Reformation; medieval religious drama; Shrovetide plays; beginnings of the humanistic drama. *Twice a week; I; (1 unit).*

Assistant Professor BROOKS

113. German Literature of the Fifteenth and Sixteenth Centuries.—Luther and the Reformation; Mastersingers and folksong; the Reformation drama; Hans Sachs; Brant; Fischart; the chap books; the English comedians. *Twice a week; II; (1 unit).*

Assistant Professor BROOKS

115. History of German Literature from Goethe's Death to the Present Time.—*Twice a week; I, II; (1 unit).*

Professor LESSING

- [116. Medieval German Literature With Reference to Political, Religious, and Social History.—Research. *Twice a week; I; (1 unit).* Not given 1914-15.

Professor LESSING]

- [117. History of German Literature During the Eighteenth Century.—*Twice a week; I, II; (1 unit).* Not given, 1914-15.

Professor GOEBEL]

118. The German Drama Since Schiller.—Research. *Twice a week; I, II; (1 unit).*

Professor LESSING

- [119. The German Novel.—Research. *Twice a week; I, II; (1 unit).* Not given, 1914-15.

Professor LESSING]

- 121b. Gudrun.—Lectures and interpretations. *Twice a week; II; (1 unit).*

Professor GOEBEL

SUMMER SESSION COURSES

- S 1. Beginners' Course.—Gohdes and Buscheks' *Sprach-und Lesebuch*. (4).

Dr. KOLLER, Dr. HELD

- S 2. Intermediate Course.—(3).

Dr. BARTO

- S 3. Prose Reading.—Narrative prose; sight translation; composition. (3.)

Dr. BARTO

- S 4. Readings from the Classics.—Lessing's *Minna von Barnhelm*, Schiller's *Jungfrau von Orleans*. (3).

Professor LESSING

- S 5. Prose Composition and Conversation.—Translation of ordinary prose into German; idiomatic constructions; free composition and conversation. Pope's *Composition*. (1).

Dr. HELD

- S 9. Teachers' Course.—Place, aim, and scope of the study of German in the high school; methods; difficulties. Observation work in the beginners' course. (1.)

Dr. KOLLER

- *S 11. History of German Literature from Klopstock to Keller.—(2).

Professor LESSING

B. SCANDINAVIAN

Undergraduate Courses Not Open to Freshmen

- [1a-1b. Elementary Norwegian.—*I, II; (3).* Not given, 1914-15.]

- [2. Elementary Swedish.—*I; (2).* Not given, 1914-15.]

3. Advanced Norwegian.—Ibsen; Björnson. Critical Study. *II; (2).*

Associate Professor FLOM

Prerequisite: Scandiavian 1a-1b, or equivalent.

4a-4b. Advanced Swedish—*I, II; (2).* Associate Professor FLOM

[**5. Henrik Ibsen**.—*II; (2).* Not given, 1914-15.]

6 Ibsen's Social Dramas.—Lectures; interpretation of four of the social dramas; Ibsen's technique. Archer's translation is used. *II; (2).*

Associate Professor FLOM

Prerequisite: Junior standing.

12. Norse Mythology.—Primitive religion; the religious belief of the Norseman in pre-Christian times; the principal myths; theogony, cosmogony, and the myth of the end of the world. *I; (2).* Associate Professor FLOM

Prerequisite: Junior standing.

14. History of Old Norse Literature.—*II; (2).*

Associate Professor FLOM

30. Scandinavian Drama.—*I; (1).*

Associate Professor FLOM

Courses for Graduates

Preparation for graduate work in the Scandinavian languages or literature must include a reading knowledge of one of the Scandinavian languages and systematic work in the undergraduate courses in Scandinavian or their equivalent. Any graduate student in language may, however, be admitted to the purely philological courses.

101. Old Norse.—The language as a member of the Germanic group. The *Volsungasaga*: selections from the King's Sagas. *I, II; (1 unit).*

Associate Professor FLOM

[**102. Old Danish**.—*Twice a week; I; (1 unit).* Not given, 1914-15.

Associate Professor FLOM]

110. Advanced Old Norse.—Mythical lays of the *Elder Edda*. *Twice a week; I; (1 unit).*

Associate Professor FLOM

GREEK

(See CLASSICS)

HISTORY

EVARTS BOUTELL GREENE, Ph.D., *Professor*

CLARENCE WALWORTH ALVORD, Ph.D., *Professor*

LAURENCE MARCELLUS LARSON, Ph.D., *Professor*

ALBERT HOWE LYBYER, Ph.D., *Associate Professor*

WILLIAM SPENCE ROBERTSON, Ph.D., *Assistant Professor*

PAUL VAN BRUNT JONES, Ph.D., *Associate*

THEODORE CALVIN PEASE, Ph.D., *Associate*

ARTHUR CHARLES COLE, Ph.D., *Instructor*

ELIZABETH PARNHAM BRUSH, A.M., *Assistant*

JAY EARLL MILLER, A.M., LL.B., *Assistant*

Co-operating:

WILLIAM ABBOTT OLDFATHER, Ph.D., *Associate Professor, Greek*

HOWARD VERNON CANTER, Ph.D., *Assistant Professor, Latin*

SUMMER SESSION ONLY

THOMAS FRANCIS MORAN, Ph.D., *Purdue University*

ROBERT KIMBALL RICHARDSON, Ph.D., *Beloit College*

Of the courses listed below, History 1 (Continental European history) and History 2 (English history), which are intended primarily for freshmen and

sophomores and may not be taken for full credit by seniors, furnish the best general introduction to the advanced courses of the department. History 3 (American history) is especially appropriate for sophomores, and is the ordinary prerequisite for advanced courses in this subject. For those who expect to teach history or classics in secondary schools courses 5 and 6 (Ancient history) will be useful. It is not, however, necessary or desirable that the same student should take all of these introductory courses. The junior and senior years should be given to distinctly advanced courses, especially those listed in group B below. The introductory courses in economics and political science (Economics 1 and Political Science 1 and 3) are especially recommended to students in this department. The importance of thorough linguistic training is also emphasized, particularly in Latin, French, and German.

Honors

Candidates for honors, as distinguished from a major, in history must offer:

1. Not less than 24 hours in this subject, including History 1 and 3, at least 3 hours of English history, and at least 6 hours in Group B.
2. Two minor subjects aggregating at least 24 hours, approved by the department, including in each case some advanced work. The minors must be selected from the following list: economics; political science; law; philosophy, including a course in logic and one in the history of philosophy (one course in education or psychology may be accepted as a part of the requirement in philosophy); English literature; the classics. Economics or political science must be offered as one of the minor subjects. The ability to read simple prose in one foreign language is ordinarily expected of candidates in history, and students who have pursued the study of Romance languages or Germanic languages so far as to include courses in the history of literature may count one of these subjects as a minor. The minor subjects above named will, for the present, be accepted as minors for students who are candidates for the ordinary degree of A.B.

Courses for Undergraduates Only

1a-1b. Continental European History.—Europe from the fourth century to the present time. (The work of neither semester may be taken separately without special permission.) *I, II; (4).*

Associate Professor LYBYER, Dr. JONES, and assistants

2a-2b. English History.—First Semester; political history of England to 1602; social, economic, and religious movements. Second Semester; the modern history of England; colonial and imperial development. *I, II; (3).*

Professor LARSON, Dr. COLE, and assistants

3a-3b. History of the United States.—First Semester; the Colonial Era; the Revolution; genesis of the Federal Constitution. Second Semester; the United States under the Constitution. (Either semester may be taken separately.) *I, II; (3).*

Professor GREENE, Assistant Professor ROBERTSON, Dr. COLE

Prerequisite: One year of college work.

5. History of Greece.—I; (3). (See Greek 20.)

Associate Professor OLDFATHER

Prerequisite: One college course in history or the classics. Not open to freshmen.**6. History of Rome.—II; (3).** (See Latin 19.)

Assistant Professor CANTER

Prerequisite: One college course in history or the classics. Not open to freshmen.**[17. The History of Illinois.—**The political, economic, and social development of a typical commonwealth in the Middle West, considered in its relation to the general course of American history. *II; (2)*. Not given in 1914-15.*Prerequisite:* History 3a-3b or junior standing in any college of the University.]**18. The Teaching of History.—**Problems of historical teaching in secondary schools. *I; (2)*. Dr. COLE*Prerequisite:* History 1a-1b, 3a-3b, or their equivalent; senior standing.**28a-28b. Thesis.—**For candidates for honors and for other seniors who wish special training in investigation. *I, II; (2)*.

Assistant Professor ROBERTSON and other members of the department

Courses for Undergraduates and Graduates

(Open to seniors and to juniors of high standing. The ability to use French and German is desirable in the courses of this group.)

4a-4b. The Constitutional History of England.—First Semester; institutional origins. Second Semester; modern constitutional practise. (Important for students who wish to specialize in history, political science, or law.) *I, II; (3)*. Professor LARSON*Prerequisite:* One year of college history.**[7. The Revolutionary and Napoleonic Era.—I; (3).** Not given in 1914-15.*Prerequisite:* History 1a-1b.]**8. English Civilization in the Middle Ages.—**The religious, economic, and intellectual development of medieval society. *I; (3)*.

Professor LARSON

Prerequisite: History 1a-1b.**9. European Society in the Era of the Renaissance.—**The transition medieval to modern ideals. (Continuation of course 19; either may be taken separately.) *II; (3)*. Dr. JONES*Prerequisite:* History 1a-1b.**[10. The Development of American Society in the Eighteenth Century.—II; (4).** Not given in 1914-15.*Prerequisite:* History 3a-3b.]**[12. History of Germany.—I, II; (2).** Not given in 1914-15.]**14. The Making of the Federal Constitution.—**The events from 1783 to 1789 which resulted in the framing and ratification of the Federal Constitution of 1787; the contemporary arguments for and against its ratification. *I; (3)*.

Professor GREENE

Prerequisite: History 3a-3b or Political Science 1 and 3.

15. **The Civil War and the Reconstruction in the United States.—II;**
(3). Dr. COLE

Prerequisite: History 3a-3b.

16a-16b. **The Exploration and Colonization of the West.—**First Semester; the Mississippi Valley from the earliest European explorations to the close of the war 1812. Second Semester; the Mississippi Valley since 1815, and the progress of western expansion to the Pacific. (Either semester may be taken separately. *I, II; (2).*)

Professor ALVORD

Prerequisite: History 3a-3b.

19. **France in the Feudal and Later Middle Ages With Special Reference to Institutions.—**A reading knowledge of the French is required. May be combined with History 8 (English Civilization in the Middle Ages). *I; (3).*

Dr. JONES

Prerequisite: History 1a-1b.

20a-20b. **Europe From the Period of the Napoleonic Empire to the Present Time.—**Political movements and the development of civilization as the historical basis for an understanding of contemporary European life. First Semester; the nineteenth century to the formation of the German Empire in 1871. Second Semester; Europe since 1871. (Either semester may be taken separately.) *I, II; (3).*

Associate Professor LYBYER

Prerequisite: One year of college work in history or political science, and junior standing.

21. **History of the United States Since the Reconstruction.** Introduction to contemporary American politics. *I; (3).*

Assistant Professor ROBERTSON

Prerequisite: History 3a-3b.

26. **The Latin-American Colonies.—**The political, economic, social, and intellectual life of Spain during the period of discovery; the exploration, settlement, and civilization of Spanish America and the Philippines; the exploration and colonization of Brazil. *I; (3).* Assistant Professor ROBERTSON

Prerequisite: History 1a-1b or 3a-3b.

27. **The History of Latin-America From the Wars of Independence to the Present Time.—**The leading Latin-American states; political parties; existing governments; relations with Europe and the United States; the Old Regime in Texas, Mexico, and California. *II; (3).*

Assistant Professor ROBERTSON

Prerequisite: History 3a-3b.

29. **The Far East.—**The contact of Western Christendom with the Far East from the Portuguese establishments of the sixteenth century to the Chinese revolution of 1911, with special reference to China and Japan. *II; (2).*

Professor GREENE

Prerequisite: Senior standing including at least one year of college work in history, economics, or political science.

Courses for Graduates

A student entering upon graduate work should have had at least the equivalent of the introductory courses in European and American history. All students of history should have a reading knowledge of German and French; for

medieval history some knowledge of Latin is indispensable, and in certain fields of American history Spanish is needed.

Graduate courses in history at the University of Illinois are of three kinds: 1. Instruction in methodology, historiography, and bibliography. This work (in course 103a-103b) is required of all graduate students in history during their first year. 2. Seminar courses for the study of special fields with a view primarily to training in the methods of historical criticism and research. 3. Courses for information and guidance in general reading.

ILLINOIS SURVEY.—Students of history have an opportunity to pursue research in western history in connection with the Illinois Survey, an organization for the purpose of carrying on systematic studies in the history of Illinois.

The History Club, consisting of graduate students and instructors, devotes its programs to reviews of current progress in historical work and informal discussion of historical topics.

101. Seminar in American History.—Bibliography; practise in the solution of typical problems; reports on the progress of individual investigations by instructors and students. *Once a week; I, II.** Professor GREENE and others

Students interested in the investigation of special topics, whether with a view to writing theses or otherwise, may register in this course and will be advised by members of the department as follows:

On American history before 1789 and problems of church and state.

Professor GREENE

On American history after 1789 and Latin-American history.

Assistant Professor ROBERTSON, Dr. COLE

On the history of the West.

Professor ALVORD

102. Studies in English History.—*Twice a week; I, II.**

Professor LARSON

103. Historical Bibliography and Criticism.—Problems in various fields. Required of all candidates for an advanced degree in history who do not present evidence of similar training elsewhere. *Twice a week; I, II; (½ unit).*

Associate Professor LYBYER and others

104. Research in European History.—Investigation of topics in medieval and modern history. *I, II.**

Associate Professor LYBYER, Dr. JONES

105. The History of Western Expansion, 1763-1818.—Interpretation of Western history. Lectures and readings. *Once a week; I, II; (½ to 1 unit).*

Professor ALVORD

111. Spanish-American Relations.—The relations of the Latin-American states with Europe and the United States. Selected topics. *Once a week; I, II.**

Assistant Professor ROBERTSON

112. Studies in American Religious History.—Church and State. *Once or twice a week at the option of the instructor. I, II.**

Professor GREENE

SUMMER SESSION COURSES

S 1c. History of Europe Since 1648.—Introductory course corresponding, for the period covered, to History 1, as given during the regular session. *(2½.)*

Professor RICHARDSON

*The unit values of graduate courses in history are fixed at the time of registration, after conference with the instructors in charge of the courses.

S 3a. American History, 1606-1783.—Colonization; the colonies in the eighteenth century; the conflict of France and England for the possession of North America; the American Revolution. (2½.)

Assistant Professor ROBERTSON

Courses for Graduates and Undergraduates

(At least junior standing required)

***S 4. The Modern Constitutional History of England.**—(2½.)

Professor MORAN

Prerequisite: At least one year of college work in European or English history.

***S 30. The United States and Latin America.**—The liberation of the Spanish-American colonies; the independence of Brazil; their recognition as independent nations; the Monroe Doctrine, its origin, application, and influence; Pan-Americanism; intervention in Spanish America; the Panama Canal. (1½.)

Assistant Professor ROBERTSON

Prerequisite: At least one college course in American history.

***S 31. Intellectual Background of Medieval Institutions.**—The ancient origins, and nature, of that attitude toward God and the world which forms the intellectual basis for the most characteristic institutions of the Middle Ages. A study, in translation, of Augustine's *City of God* and Dante's *De Monarchia*. The fate of classical literature; one or two types of medieval literature. (2½.)

Professor RICHARDSON

Prerequisite: A college course in medieval history. Open also by permission of the instructor to advanced students in classics and modern languages.

Courses for Graduates

***S 101. Investigation of Selected Topics.**—Conferences with graduate students who desire guidance in research.

Assistant Professor ROBERTSON

HORTICULTURE

JOSEPH CULLEN BLAIR, M.S., *Professor, Horticulture*

JOHN WILLIAM LLOYD, M.S., *Professor, Olericulture*

CHARLES SPENCER CRANDALL, M.S., *Professor, Pomology*

CHARLES MULFORD ROBINSON, A.M., *Professor, Civic Design*

HERMAN BERNARD DORNER, M.S., *Assistant Professor, Floriculture*

BETHEL STEWART PICKETT, M.S., *Assistant Professor, Pomology*

WILHELM MILLER, Ph.D., *Assistant Professor, Landscape Horticulture*

RALPH RODNEY ROOT, M.L.A., *Assistant Professor, Landscape Gardening*

EARNEST WINFIELD BAILEY, M.S., *Associate, Pomology*

OSCAR S WATKINS, B.S., *Associate, Horticultural Chemistry*

CHARLES ELMER DURST, M.S., *Associate, Olericulture*

SIMEON JAMES BOLE, A.M., *Associate, Pomology*

JOHN JOSEPH GARDNER, M.S., *Associate, Pomology*

IRA DENT ALLISON, B.S., *Associate, Horticulture*

FRANK A CUSHING SMITH, M.L.A., *Instructor, Landscape Design*

*The unit values of graduate courses in history are fixed at the time of registration, after conference with the instructors in charge of the courses.

ROBERT WILLIAM HOFFMAN, B.S., *Instructor, Landscape Gardening*
 FREDERICK NOBEL EVANS, M.L.A., *Instructor, Landscape Design*
 ARTHUR SAMUEL COLBY, B.S., *Assistant, Pomology*
 FRANZ AUGUST AUST, M.S., *Assistant, Landscape Design*
 HEBBERT WARDWELL BLANEY, M.L.A., *Assistant, Landscape Extension*
 JOHN RAYMOND VAN KLEEK, M.L.D., *Assistant, Landscape Extension*
 HOWARD DEXTER BROWN, B.S., *Assistant, Olericulture*
 AUGUST GEORGE HECHT, B.S., *Assistant, Floriculture*
 DUANE TAYLOR ENGLIS, A.M., *Assistant, Floriculture*
 LEE ELLIS MILES, A.B., *Assistant, Floriculture*
 EDWIN DEAL, B.S., *Assistant, Landscape Extension*

1a. Elements of Horticulture.—Fruit growing, vegetable gardening, and ornamental planting, with special reference to the farm home. (Required of all freshmen in the general course in Agriculture.) Recitations; practical exercises. *I; (2).*

Professor LLOYD, Assistant Professor PICKETT, Mr. GARDNER, Mr. COLBY

1b. Elements of Horticulture.—A continuation of 1a. (Required of all freshmen in the general course in Agriculture.) *II; (2).*

Professor LLOYD, Assistant Professor PICKETT, Mr. GARDNER, Mr. COLBY

2. Small Fruits and Grapes.—The strawberry, raspberry, blackberry, dewberry, currant, gooseberry, grape. History; extent of cultivation; soil; location; fertilizers; propagation; planting; tillage; pruning; insect enemies; diseases; varieties; harvesting; marketing. Lectures; reference readings. *II; (2).*

Mr. BOLE

Prerequisite: Horticulture 1a and 1b or their equivalents, Horticulture 5.

3. Vegetable Gardening.—The production and marketing of vegetables. Lectures; reference readings; practical exercises. *II; (5).*

Professor LLOYD, Mr. DURST, Mr. BROWN

Prerequisite: Horticulture 1a and 1b or their equivalents.

4. Plant Houses.—Construction, cost, and maintenance; heating; ventilating. *I; (4).*

Assistant Professor DORNER

5. Plant Propagation.—Grafts; buds; layers; cuttings; seeds. Lectures; laboratory; quizzes. *II; (5).* Assistant Professor DORNER, Mr. HECHT

6. Nursery Methods.—Nursery management and its relation to horticulture. Lectures; reference readings. *II; (2).*

Assistant Professor PICKETT, Mr. BAILEY

Prerequisite: Horticulture 5; Entomology 4a-4b.

7. Spraying.—Materials, appliances, and methods employed in combating insects and fungous diseases. Lectures; reference readings; laboratory; field work. *II; (3).*

Professor LLOYD, Mr. WATKINS

Prerequisite: Horticulture 1a and 1b or their equivalents; Chemistry 1; Entomology 4a-4b.

8. Orcharding.—Pomaceous, drupaceous, and nut fruits; large commercial orchards; harvesting; grading; packing; storing; marketing. *I; (5).*

Professor CRANDALL, Mr. BAILEY, Mr. BOLE

Prerequisite: Horticulture 1a and 1b or their equivalents, Horticulture 5; Botany 1; Entomology 4a-4b.

[9. Forestry.—Forest trees; uses; distribution; artificial production; relations of forest and climate; legislation and economy. *II*; (2). Not given 1914-15.

Prerequisite: Botany 1, or an equivalent.]

10a. Landscape Gardening.—Lectures; reference reading; drafting; plant studies; field trips. *I*; (3). Mr. SMITH

10b. Landscape Design (Elementary Course).—Landscape design, for farm and city homes, playgrounds, small parks, based on topographic surveys. Six hours drafting. *II*; (3). Assistant Professor ROOT, Mr. SMITH

11. Study of Cultivated Plants.—The relationship and classification of certain economic and ornamental plants of the temperate zone; identification of species; examination of living plants and herbarium specimens. Lectures; assigned readings. *I*; (2). Professor BLAIR, Professor CRANDALL

Prerequisite: Botany 4a.

12. Evolution of Horticultural Plants.—History, botanical classification, and geographical distribution of cultivated plants; modification under culture; theoretical causes and observed factors influencing variation, particularly food supply, climate, and cross-fertilization. *I*; (3). Professor CRANDALL

Prerequisite: Two years of University work, including Horticulture 8 and Botany 4a.

15a. Principles of Plant Growing.—Preparation of soils for greenhouse crops; fertilizers; potting and shifting plants; watering. Lectures; greenhouse work. *II*; (5). Assistant Professor DORNER, Mr. HECHT

Prerequisite: Horticulture 5; Botany 1.

15b. Commercial Crops.—Greenhouse plants and cut flowers for wholesale and retail markets; care and marketing. Lectures; greenhouse work. *I*; (5). Assistant Professor DORNER, Mr. HECHT

Prerequisite: Horticulture 15a.

17. Commercial Fruit Culture.—Practical work in houses and fruit plantations; reference readings; seminar. (For students specializing in horticulture.) *I*; (5). Professor CRANDALL, Mr. BAILEY

Prerequisite: Horticulture 2, 8.

18. Experimental Horticulture.—Methods and difficulties in horticultural investigations; the planning of experiments; recording and interpretation of results. (For advanced students preparing for experiment station work.) *II*; (5). Professor BLAIR, Assistant Professor PICKETT, Mr. WATKINS

Prerequisite: Twenty hours work in Horticulture.

19. Amateur Floriculture.—Window gardening; flowers upon the home grounds; containers; potting soils; fertilizers; preparation and planting; propagation and culture of plants suitable for window and garden. *I*; (3).

Assistant Professor DORNER

21a-21b. Landscape Design (First Course).—Principles of composition; lectures on form and arrangement. Small home grounds and gardens of simple form. Types of drafting and presentation in office practise. Nine hours drafting. *I, II*; (4). Mr. EVANS

Prerequisite: Architecture 32.

22. Special Investigation and Thesis.—*I* or *II*; (5-10).

23a-23b. Landscape Design (Second Course).—Principles of landscape design applied to topographic plans for urban home grounds and country estates, small parks and playgrounds. Lectures. Eleven hours drafting. *I, II; (4).* Mr. EVANS

Prerequisite: Horticulture 21b.

24a. Trees and Shrubs.—Plant material important to landscape gardening; landscape value; adaptability to the soil and situation; use in design. Two lectures; one field trip. *II; (3).* Assistant Professor ROOT, Mr. HOFFMAN

24b. Trees and Shrubs.—(Continuation of 24a.) Two lectures; one field trip. *I; (3).* Assistant Professor ROOT, Mr. HOFFMAN

Prerequisite: Horticulture 24a.

25a and 25b. Landscape Design (Advanced Course).—The larger problems of landscape work; large country estates, country parks, golf courses, cemeteries, real estate subdivisions, other problems of civic extension. Fifteen hours drafting. *I, II; (5).* Professor ROBINSON, Mr. EVANS

Prerequisite: Horticulture 23b.

26a. Planting Design.—Plans, based on the design problems in courses 10b, 23a, and 23b. One conference and six hours drafting. *II; (3).*

Assistant Professor ROOT, Mr. HOFFMAN

Prerequisite: Horticulture 23a, 24b.

26b. Planting Design.—Plans, based on the design problems in course 25. One conference and six hours' drafting. *I; (3).*

Assistant Professor ROOT, Mr. HOFFMAN

Prerequisite: Horticulture 26a.

27a. Landscape Practise.—Relation of topographic maps to landscape design; calculation of cut and fill; quantities of material; grading plans and working drawings. One lecture and six hours' drafting. *I; (3).* Mr. SMITH

Prerequisite: Civil Engineering 22 or 32; Horticulture 10b.

27b. Landscape Practise.—Construction drawings; drainage, water supply and sewage disposal; specifications and reports; engineering drawings based on the problems in courses 25 and 37. Two lectures and four hours' drafting. *II; (3).* Mr. SMITH

Prerequisite: Horticulture 27a.

28. Exotics.—Temporary decorative plants used in landscape gardening. Lectures; planting plans; field trips. *II; (1)*

Assistant Professor ROOT, Mr. HOFFMAN

Prerequisite: Horticulture 23b, 24b.

29a. Garden Design.—The garden in its relation to the house; architectural harmony, utilization, topographic conditions, and planting for architectural or horticultural emphasis. Eight hours' drafting and one lecture. *I; (3).* Associate Professor ROOT

Prerequisite: Architecture 32.

29b. Garden Design.—Public gardens and open spaces; their relation to garden design. Eight hours' drafting; one lecture. *II; (3).*

Assistant Professor ROOT

Prerequisite: Horticulture 29a.

30. Decorative and Bedding Plants.—Tropical and subtropical plants used in decorative work in the conservatory; tender plants used in outdoor bedding. Lectures; practical greenhouse work. *II*; (5).

Assistant Professor DORNER, Mr. HECHT

Prerequisite: Horticulture 15a.

31. Garden Flowers.—Annuals, herbaceous perennials, bulbs, and shrubs for cut flowers and ornamental plantings. *I*; (3).

Assistant Professor DORNER

Prerequisite: Horticulture 5; Botany 1.

32. Floral Decoration.—Cut flowers and plants in decorative work; arrangement in baskets, designs, and bouquets; table decoration; house decoration. (For floricultural students.) *II*; (4). Assistant Professor DORNER

[33. Systematic Pomology.—Description, nomenclature, and classification of native and sub-tropical fruits; critical descriptions and identification; relationships and classifications of varieties. Judging and displaying of fruits, *I*; (2). Not given, 1914-15.

Prerequisite: Horticulture 8.]

34. Vegetables Under Glass.—Vegetable forcing. Lectures; reference readings; laboratory. *I*; (3).

Mr. DURST, Mr. BROWN

Prerequisite: Horticulture 3, 15a.

35. Private Conservatory Work.—Types of plants for large conservatories; arrangement; care. *II*; (3). Assistant Professor DORNER

Prerequisite: Horticulture 15a, 4.

36. Development of Landscape Gardening.—History from Egyptian to modern times; survey of literature. Lectures; reference readings; library sketches; reports. *II*; (2). Assistant Professor ROOT

37a. Civic Design.—Town remodeling; remedial problems in town planning. Lectures; field trips; reports; drafting. *I*; (3).

Professor ROBINSON

Prerequisite: Horticulture 23b.

37b. Civic Design.—Town extension; preventive and preservative aspects of town planning. Lectures; reference readings, drafting, and textbook. *II*; (3). Professor ROBINSON

Prerequisite: Horticulture 37a.

38. Field Practise in Landscape Gardening.—Carrying out landscape plans in the field. Lectures; field work; reports. *I* or *II*; (2).

Prerequisite: Horticulture 27a, 26b.

39a-39b. Special Lectures.—Problems in landscape gardening. Required of students taking the professional course. One lecture per week with written reports. *I, II*; (1). Assistant Professor ROOT

Prerequisite: Permission of the instructor in charge.

40a. Trees and Shrubs (Advanced Course).—Laboratory; field and herbarium work; assigned readings; seminar conferences. *I*; (3).

Assistant Professor ROOT, Mr. HOFFMAN

Prerequisite: Horticulture 24b.

40b. Trees and Shrubs (Advanced Course).—Classification and arrangement of plants by leaf color. *II*; (3).

Assistant Professor ROOT, Mr. HOFFMAN

Prerequisite: Horticulture 24b, 26b.

Courses for Graduates

At least two years of collegiate work in horticulture and allied subjects and specific preparation for the chosen topics are required for entrance upon major work in this department.

102. Pomology.—Adaptation, propagation, cultivation, or pruning of small fruits. Conferences. *II*; ($\frac{1}{2}$ to 1 unit). Professor CRANDALL

103. Olericulture.—Structure, cultural requirements, and improvement of vegetables. Conferences. *I, II*; (*1 to 2 units each semester; a student working part time and extending his study for the master's degree over two years may register $\frac{1}{2}$ to 1 unit for each of the four semesters.*) Professor LLOYD

108. Pomology.—The relationship, adaptation, improvement, propagation, cultivation, pruning, protection, preservation, or marketing of orchard fruits. Conferences. *I, II*; (*1 to 2 units each semester; a student working part time and extending his study for the master's degree over two years may register for $\frac{1}{2}$ to 1 unit for each of the four semesters.*)

Professor BLAIR, Professor CRANDALL

[109. Forestry.—Investigation of forest growths. Not given in 1914-15.]

115. Floriculture.—The horticultural status of various flowering plants, or special problems in the culture of greenhouse plants.

Assistant Professor DORNER

HOUSEHOLD SCIENCE

ISABEL BEVIER, Ph.M., *Professor and Director*

NELLIE ESTHER GOLDTHWAITE, Ph.D., *Assistant Professor*

CORA EMELINE GRAY, M.S., *Associate*

RUTH WHEELER, Ph.D., *Associate*

LURENE SEYMOUR, Ph.B., B.S., *Associate*

MAUD EDNA PARSONS, A.B., *Instructor and Director of Lunch Room*

GEORGIA ELIZABETH FLEMING, B.S., *Instructor*

GRACE ESTHER STEVENS, A.B., *Instructor*

FLORENCE HARRISON, B.S., *Instructor*

ANNA WALLER WILLIAMS, A.M., *Instructor*

GRETA GRAY, B.S., A.M., *Instructor*

MAMIE BUNCH, A.B., *Instructor*

MARGARET B STANTON, A.M., *Instructor*

Food

1. Selection and Preparation of Food.—Nature and use, chemical composition, changes effected by heat, cold, or fermentation; the principles of selection; marketing; manufacture of foods; combinations. *II*; (3).

Miss STEVENS, Miss STANTON, Miss GRETA GRAY

Prerequisite: Entrance credit in Physics; Chemistry 1.

6. Economic Uses of Food.—(Continuation of 1.) The economics of the food question; uses and applications of preservatives. *I*; (3).

Miss STEVENS, Miss STANTON, Miss GRETA GRAY

Prerequisite: Household Science 1.

14. Problems in the Preparation and Service of Food.—(Continuation of courses 1 and 6.) Preparation and service of meals for a family; cost and dietetic values; the preparation of food in quantities; individual problems in the manipulation of food materials; demonstrations. *I, II; (3).*

Miss CORA GRAY, Miss WILLIAMS

Open to: a. Those preparing for lunch-room management. b. Those preparing for extension work. c. In special cases, to those who have completed the major in Household Science.

Prerequisite: Household Science 1, 6; Chemistry 1, 2, 3; junior standing and the consent of the instructor.

5. Dietetics.—The principles of diet; the relation of food to health; influence of age, sex, and occupation; the construction of dietaries; dietetic treatment of diseases. Laboratory. *I, II; (3).*

Assistant Professor GOLDTHWAITE

Prerequisite: Household Science 1, 6; Physiology 4; Chemistry 1, 2, 3.

4. Food and Nutrition.—Application of the principles of pure science to the physiological, chemical, or bacteriological problems of food and nutrition. Individual investigation. *I; (5).*

Assistant Professor GOLDTHWAITE

Prerequisite: Bacteriology 5; Chemistry 1, 2, 3, 13a, 9, 9c, five hours in botany or zoology; Household Science 1, 5, 6.

18a-18b. Lunch Room Management.—The movement to feed school children; practise. Open to seniors. *I, II; (3).*

Miss PARSONS

Prerequisite: Household Science 1, 5, 6 and 14; Economics 1 or 2.

The House

2. Home Architecture and Sanitation.—Situation, surroundings, and construction of the house; hygiene of the home; heating, lighting, ventilating, water supply, and drainage. Lectures on house planning and sanitary plumbing, fixtures and internal drainage; exercise in making skeleton plans. *I; (2).*

NOTE.—Only 1 credit for seniors.

Professor BEVIER and others

3. Elementary Home Decoration.—(Continuation of course 2). Evolution of the house; homes of primitive peoples; theory of color and its application in home decoration; furnishings from a sanitary and artistic standpoint. *II; (2).*

Professor BEVIER, Miss FLEMING, Miss GRETA GRAY

Prerequisite: Art and Design 12; Household Science 2.

10. Household Management.—Expenditure of the income; organization; care of the house and family; home nursing; domestic service problem. Laboratory work in practise apartment. *II; (2).*

Miss CORA GRAY

Prerequisite: Household Science 1, 2, 6; Economics 1 or 2; junior standing.

Textiles

7. Textiles.—Primitive industries; production of fibers used in textile manufacture; cloth judging and weaving. *I, II; (2).*

Miss SEYMOUR

NOTE.—Only 1 credit for seniors.

12. Household Art and Clothing.—(Continuation of course 7a-7b). Materials suitable for various uses in home and in clothing; texture, quality,

design in relation to form; color in relation to environment and personality; hygienic properties and cost. *II*; (3). Miss SEYMOUR, Miss FLEMING

Prerequisite: Household Science 7; Art and Design 1, 12; 30 hours of university work; proof, by examination or otherwise, of the ability to sew.

17. Problems in the Study of Textiles.—The quality; microscopic and chemical analysis of fabrics; textile industry. Lectures; laboratory. *II*; (3).

Miss SEYMOUR

Prerequisite: Household Science 7, 12; Chemistry 1, 2, 3.

Courses for Teachers

11. *Teachers' Course.—Methods of presentation, correlation. Planning courses, and some opportunity for presenting them. (For the prospective supervisor of the subject, or for the teacher in the graded schools.) *II*; (3).

Professor BEVIER, Miss HARRISON, Miss SEYMOUR

Prerequisite: Household Science 1, 2, 3, 5, 6, 7, 12, and 13; laboratory work in sewing, Saturday morning; first semester; senior standing.

13. History of Home Economics.—Origin and development; the work in different types of institutions; the planning of courses. *I*; (2).

Professor BEVIER, Miss HARRISON

Prerequisite: Senior standing.

9. Seminar.—Different phases of home economics; individual problems. *II*; (3).

Professor BEVIER

Prerequisite: Senior standing.

Economics of the Family

15. Economics of the Family Group.—The economic relations of the family as a whole and as individuals. Retail market; sources of income, social and industrial conditions affecting it; child labor; economic position of women. *I*; (3).

Miss CORA GRAY

Prerequisite: Household Science 3, 6, 10, 12.

16a-16b. Problems in the Economics of the Family Group.—Individual work in the senior seminar in economics. *I, II*; †(2-4).

Professor KINLEY

Prerequisite: Household Science 15.

Courses for Graduates

Students who wish to do graduate work in household science will find it to their advantage to specialize in either the scientific or the economic phases of the subject. In either case they should be able to offer an equivalent of twenty-four hours of household science given in the University of Illinois, with a minimum of two years of chemistry, including organic chemistry, a year of biological science, and a year of either economics or sociology.

101. Home Economics.—The origin and development of home economics; industrial, educational, and sociological aspects. *Twice a week; I, II*; (1 unit).

Professor BEVIER

*Students regularly registered in courses 11 may have instruction in millinery, without credit, on Saturday morning from 9:00 to 11:00.

†In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

102. Special Investigations.—Application of the principles of bacteriology, chemistry, and physiology to the ordinary processes used in preparation of food; problems in nutrition. *Twice a week; I, II; (2 units).*

Professor BEVIER, Assistant Professor GOLDTHWAITE, Dr. WHEELER

SUMMER SESSION COURSES

Foods.—The work offered in foods is of two grades. A. That designed for those who have studied or taught household science and wish to prepare themselves to teach it in high schools. B. Advanced work dealing with the general subject of nutrition.

S 1. Sources and costs of foods; the cooking of various types; planning and service of meals. Bevier and Van Meter's *Selection and Preparation of Food*. Reference work; laboratory. Lecture. (1½.) Miss WILLIAMS

S 2. Relative nutritive value of foods; dietetic values; the relation of foods to the human body. (1½.) Miss WILLIAMS

Prerequisite: A year's work of college rank with foods; a year of general chemistry; a course in general physiology.

S 3. Lunch Room Management.—History of the movement to feed school children. Practise in lunch room management. (1½.) Miss PARSONS

Prerequisite: Work equivalent to a year's training in food principles; practical experience in house management and marketing.

S 4. Clothing.—Textiles used in clothing; cost and care of clothing; use of patterns; drafting; laboratory work in the making of undergarments, a shirtwaist, and a cotton dress. (1.) Miss FLEMING

S 5. Millinery.—Designing and construction of wire, buckram, and cape net frames; the covering with velvet and straw. (1.) Miss FLEMING

ITALIAN

(See ROMANCE LANGUAGES and LITERATURE.)

JOURNALISM

(See RHETORIC 12, 15, 17, 19, under THE ENGLISH LANGUAGE AND LITERATURE.)

LANDSCAPE GARDENING

(See HORTICULTURE.)

LATIN

(See CLASSICS.)

LAW

OLIVER ALBERT HARKER, A.M., LL.D., *Professor, Dean*

FREDERICK GREEN, A.M., LL.B., *Professor*

EDWARD HARRIS DECKER, A.B., LL.B., *Professor*

JOHN NORTON POMEROY, A.M., LL.B., *Professor*

CHESTER GARFIELD VERNIER, A.B., J.D., *Professor*

WILLIAM GREEN HALE, B.S., LL.B., *Professor, Secretary*

CHARLES ERNEST CARPENTER, A.M., LL.B., *Assistant Professor*

First Year Courses

NOTE.—In addition to the regular courses, first year students are required to attend one quiz-hour each week.

1a-1b. Contracts.—Williston's *Cases on Contracts*, Vols. I and II. Selected Illinois Cases. *I*; (4): *II*; (3). Professor DECKER

2a-2b. Torts.—Ames and Smith's *Cases on Torts*. *I, II*; (3). Professor HALE

37. Introduction to the Study of Law—*I*; (1). Professor DECKER

3. Real Property.—Gray's *Cases on Property*, Vols. I and II, (2nd edition) and Kirchwey's *Readings in Real Property*. *II*; (3). Assistant Professor CARPENTER

4. Common Law Pleading.—Andrews' *Stephen on Pleading*. Selected Illinois Cases. *II*; (3). Assistant Professor CARPENTER

5. Criminal Law.—Beale's *Cases on Criminal Law*, (2nd edition). *I*; (4). Professor VERNIER

6. Personal Property.—Gray's *Cases on Property*, Vol. I, (2nd edition). *I*; (2). Professor GREEN

7. Domestic Relations.—Woodruff's *Cases on Domestic Relation*, (2nd edition). *II*; (2). Professor VERNIER

Second Year Courses

Required Courses

8. Evidence.—Thayer's *Cases on Evidence*, (2nd edition). *II*; (5). Professor HALE

10. Real Property.—Gray's *Cases on Property*, Vols. II and III, (2nd edition). *I*; (2). Assistant Professor CARPENTER

11. Agency.—Wambaugh's *Cases on Agency*. *I*; (3). Assistant Professor CARPENTER

12a-12b. Equity.—Ames' *Cases on Equity*. *I*; (3); *II*; (2). Professor POMEROY

18. Wills.—Gray's *Cases on Property*, Vol. IV, (2nd edition). *II*; (2). Professor POMEROY

20. Equity Pleading.—Thompson's *Cases on Equity Pleading*. Selected Illinois Cases. *II*; (2). Professor HARKER

35a-35b. Moot Court.—*I, II*; (1). Professor HARKER

Elective Courses

(Open to Second and Third Year Students.)

9. Sales.—Williston's *Cases on Sales*, (2nd edition). *I*, (3). Professor HALE

13. Damages.—Beale's Cases. *I*; (2). Professor DECKER

14. Carriers.—Green's *Cases on Carriers*. *I*; (3). Professor GREEN

[27. Future Interests in Property.—Gray's *Cases on Property*, Vol. V and part of Vol. VI, (2nd edition). *II*; (3). Given in alternate years; not given in 1914-15.]

[28. Insurance.—Wambaugh's *Cases on Insurance*. II; (2). Given in alternate years; not given in 1914-15.]

29. Conveyancing.—Gray's *Cases on Property*, Vol. III and part of Vol. VI, (2nd edition). II; (2). Assistant Professor CARPENTER

30. Public International Law.—Lawrence's *Principles of International Law* and Scott's *Cases on International Law*. I; (3). Professor GARNER

32. Quasi-Contracts.—Woodruff's *Cases on Quasi-Contracts*. II; (2). Professor VERNIER

34. Public Utilities.—Wyman's *Cases on Public Service Companies*, (2nd edition). II; (2). Professor GREEN

Third Year Courses

Required Courses

15. Bills and Notes.—Huffcut's *Cases on Bills and Notes* (Colson's edition). I; (3). Professor VERNIER

17. Private Corporations.—Canfield and Wormser's *Cases on Private Corporations*. II; (2). Professor GREEN

19. Partnership.—Mechem's *Cases on Partnership* (2nd edition). I; (2). Professor HALE

21. Suretyship.—Ames' *Cases on Suretyship*. II; (3). Professor DECKER

22. Constitutional Law.—Hall's *Cases on Constitutional Law*. I; (3). Professor GREEN

36a-36b. Moot Court.—I, II; (2). Professor HARKER

31. Conflict of Laws.—Beale's *Shorter Selection of Cases on Conflict of Laws*. II; (2). Professor VERNIER

38. Illinois Procedure.—I; (3). Professor HARKER

Elective Courses

(Third year students may also elect any of the second year elective courses not previously taken.)

16. Trusts.—Ames' *Cases on Trusts*, (2nd edition). II; (3). Professor VERNIER

23. Mortgages and the Recording Acts.—Wyman's *Cases on Mortgages* and part of Vol. VI of Gray's *Cases on Property*, (2nd edition). I; (2). Professor POMEROY

24. Municipal Corporations.—Macy's *Cases on Municipal Corporations*. I; (2). Professor POMEROY

25. Bankruptcy.—Williston's *Cases on Bankruptcy*. II; (2). Professor DECKER

33. Constitutional Law.—Hall's *Cases on Constitutional Law*. II; (2). Professor GREEN

LIBRARY SCIENCE

PHINEAS LAWRENCE WINDSOR, Ph.B., *Director*

FRANCES SIMPSON, M.L., B.L.S., *Assistant Director, Assistant Professor*

FLORENCE RISING CURTIS, A.B., B.L.S., *Associate*

ERNEST JAMES REECE, Ph.B., *Instructor*
 ETHEL BOND, A.B., B.L.S., *Instructor*
 EDNA LYMAN SCOTT, *Special Lecturer*
 ALMA PENROSE, A.B., *Reviser*

LECTURERS FROM THE STAFF OF THE LIBRARY

FRANCIS KEESE WYNKOOP DRURY, A.M., B.L.S., *Lecturer, Order Work*
 PHILIP SANFORD GOULDING, A.B., *Lecturer, Cataloging*
 CHARLES EDWARD GRAVES, A.B., *Lecturer, Exchanges*
 EMMA FELSENTHAL, Ph.B., B.L.S., *Lecturer, Selection of Books*
 ALICE SARAH JOHNSON, A.B., B.L.S., *Lecturer, General Reference*
 EMMA REED JUTTON, B.L.S., *Lecturer, Loans*
 ADAH PATTON, B.L.S., *Lecturer, Cataloging*
 MARGARET HUTCHINS, A.B., B.L.S., *Lecturer, General Reference*
 OLA M WYETH, A.B., B.L.S., *Lecturer*
 MARY TORRANCE, A.B., B.L.S., *Lecturer*
 JENNIE ADAH CRAIG, A.B., B.L.S., *Lecturer*
 CHARLES EDWIN JANVRIN, Ph.B., B.L.S., *Lecturer*
 WINIFRED FEHRENKAMP, B.L.S., *Lecturer*

SUMMER SESSION ONLY

EFFIE POWER, A.B., *Lecturer*

2a-2b. **Reference Work.**—Methods of bibliographic research; the use of reference books; practical work in the reference department of the University library. *I, II; (3).* Assistant Professor SIMPSON

3a-3b. **Selection of Books.**—Principles of selection for libraries of different types; standard lists, critical periodicals, and other aids; practise in writing book annotations. *I, II; (2).* Miss FELSENTHAL

4a-4b. **Practise Work.**—Work in the various departments of the University library. To be taken with Library 2, 16, 17, 18, 19, 20, and 21. *I, II; (2).* Mr. REECE

6a-6b. **Subject Bibliography.**—Books in special subjects with literature and bibliography. Lectures by professors in the respective departments of the University. *I, II; (2).* Director WINDSOR, and others

7. **History of Libraries.**—The foundation, development, and resources of the leading libraries of Europe and the United States. Given in alternate years. *II; (2).* Assistant Professor SIMPSON

8. **Advanced Reference.**—Transactions of learned societies; special periodicals and government publications; indexes and other works of value to a large reference department. *I; (2).* Assistant Professor SIMPSON

Prerequisite: Library 2a-2b.

[9. **History of Books and Printing.**—The early forms of books; the invention and spread of printing; book illustration; book-binding. Given in alternate years. *II; (2).* Not given in 1914-15. Director WINDSOR]

10a-10b. **Practise Work.**—A continuation of Library 4, supplemented by one month of work as a member of the staff of an assigned public library. *I, II; (4).* Miss CURTIS

12. General Reference.—Classification and arrangement of books in the University library; the card catalogs; the more generally used reference books. (Intended for freshmen and sophomores in the University, not for students in Library School.) *I* or *II*, (2).

Miss HUTCHINS, Miss FELSENTHAL, Miss JOHNSON

13a-13b. Public Documents.—13a. Production and distribution of United States documents; their treatment and use as reference books. 13b. American state and municipal documents; publications of foreign governments. *I*, *II*; (2)

Mr. REECE

15a-15b. Seminar in Library Economy.—Special problems; library economy publications. *I*, *II*; (2).

Mr. REECE and others

16. Order, Accession, and Shelf Work.—Order department records and routine; book-buying; publishers and discounts; copyright; serials and continuations; gifts; exchanges; duplicates; the accession book and its substitutes; the shelf list and its uses; the care of pamphlets, clippings, and maps. *I*; (2).

Miss CURTIS

17. Classification.—Principles; the Dewey Decimal Classification; the Cutter Expansion Classification; book numbers. *I*; (3).

Miss BOND

18. Cataloging.—Dictionary cataloging; subject headings; classed cataloging. *I*; (3).

Miss BOND

19. Trade Bibliography.—Books and periodicals used as tools of the book trade of America, England, Germany, and France. *II*; (1).

Mr. REECE

20. Loan Department.—Records; representative systems; rules, regulations, and practises. *II*; (1).

Miss JUTTON

21. Printing, Binding, and Indexing.—*Printing*: Printing for libraries; preparing copy and reading proof. *Binding*: Materials and methods of book-binding for libraries; practise in preparing books for the bindery and in making necessary records. *Indexing*: Indexes; the form of citation; the choice and arrangements of headings; kind of type. *II*; (2).

Director WINDSOR, Miss CURTIS

22. Library Extension.—Methods; library associations; library schools; library commissions; township and county library systems; traveling libraries; home libraries; other agencies. *II*; (3).

Miss CURTIS

23a-23b. Library Administration and Current Library Literature.—Current library periodicals, bulletins, reports, catalogs, and reading lists; the organization, reorganization, and administration of small libraries; the planning and equipment of reading rooms and small library buildings; library accounts and business forms. *I*, *II*; (1).

Miss CURTIS

24a-24b. Selection of Books.—English translation of representative works of French, German, Spanish, Italian, and Russian novelists of the 19th century; examination of about forty newly published books. *I*, *II*; (2).

Assistant Librarian DRURY

25. Advanced Classification and Cataloging.—The principal systems; rules for cataloging. *II*; (1).

Miss BOND

Prerequisite: Library 17, 18.

26a-26b. Library Administration.—Advanced order work; library organization; library architecture; legislative and municipal reference work; library work with children; special topics. *I, II; (3).*

Assistant Professor SIMPSON and others

27. Bibliographical Institutions.—Organization and work of societies and institutions of America and Europe; co-operative bibliographical undertakings; international bibliography. *I; (1).*

Miss PATTON

28. Practise Work.—Advanced practise work in certain departments of the University library. *II; *(1 to 4).*

Miss CURTIS

SUMMER SESSION COURSES

NOTE—The courses indicated covered six weeks and received no university credit. Only people employed in libraries were admitted.

S 1. Classification; Cataloging; Book Numbers.—*Five times a week.*

S 2. Reference Work.—Reference books suited to the small public library. *Twice a week.*

S 3. Selection of Books.—Book selection and subject bibliography. *Twice a week.*

S 4. Work With Children.—Selection and discussion of children's books; administration of children's libraries; classification and cataloging. *Twice a week.*

S 5. Order and Accession; Loan Department; Binding and Repair. *Twice a week.*

S 6. Library Administration and Extension.—*Twice a week.*

MANUAL TRAINING

SUMMER SESSION ONLY

JOSEPH C PARK, *Director of Industrial Education, Oswego, New York*

GUSTAVE ADOLPH GROSS, *Instructor, Woodworking*

HARVEY HERBERT JORDAN, B.S., *Instructor, General Engineering Drawing*

GUSTAV HOWARD RADEBAUGH, *Instructor, Machine Work*

The courses in Manual Arts have been arranged to satisfy the needs of three classes of students who attend the Summer Sessions; first, superintendents, principals, and teachers in small schools who pursue the work with the idea of either teaching or supervising it in their schools; second, manual arts teachers and supervisors who take the courses to increase their knowledge and experience, thus enabling them to command higher salaries; and, third, to satisfy those students in others courses who take the work to enrich their experience.

S 1. Industrial Education.—History and theory of industrial education; a study of typical schools and systems of manual arts, leading to a better understanding of the aims and methods of various schemes for the promotion of industrial education in this country and European countries; organization of work, and a study of equipments and materials. *(2½).*

Mr. PARK

S 2. Woodworking.—(A course for teachers in the 7th and 8th grades and high schools.) Tools—uses, names of parts, adjustments, care of, and sharpening; joints in wood construction and their application; arts and crafts furniture; notebook work, talks, papers, problems, etc.; work at the bench. *(3).*

Mr. PARK, Mr. GROSS

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here but the number of hours for which he intends to take the course: e. g., not 2-5, but 2, or 3, or 4, or 5.

S 3. Woodworking.—(A course for teachers who have completed S 2). Cabinet and furniture making; design; technology; wood turning. (3).

Mr. PARK, Mr. GROSS

S 4. Elements of Drafting.—Required of engineering students; free-hand and mechanical lettering; use of instruments on standard set of working drawing plates; tracing, machine sketching, isometric and oblique projection, and perspective. Miller's *Mechanical Drafting*. (4).

Mr. JORDAN

S 5. Descriptive Geometry.—Point, line, and plane; the properties of surfaces; intersections and developments of surfaces. Miller's *Descriptive Geometry*. (4).

Mr. JORDAN

S 6. Pattern Shop.—The care and use of tools; the construction of patterns, core-boxes, and the use of machines in modern pattern shops. (3).

Mr. GROSS

S 7. Machine-Shop.—Chipping and filing; lathe, drill press, shaper, planer, and grinding machine. (2½).

Mr. RADEBAUGH

S 8. Advanced Machine-Shop.—Milling machine, screw machine, gear cutter, boring mill, and turret lathe; erecting and testing of machines and gas engines. (2½).

Mr. RADEBAUGH

MATHEMATICS

EDGAR JEROME TOWNSEND, Ph.D., *Professor*

SAMUEL WALKER SHATTUCK, C.E., LL.D., *Professor, Emeritus*

GEORGE ABRAM MILLER, Ph.D., *Professor*

HENRY LEWIS RIETZ, Ph.D., *Professor*

CHARLES HIRSCHEL SISAM, Ph.D., *Assistant Professor*

JAMES BYRNIE SHAW, D.Sc., *Assistant Professor*

ARNOLD EMCH, Ph.D., *Assistant Professor*

ARTHUR ROBERT CRATHORNE, Ph.D., *Associate*

ROBERT LACY BORGER, Ph.D., *Associate*

ERNEST BARNES LYTLE, Ph.D., *Associate*

GUSTAF ERIC WAHLIN, Ph.D., *Associate*

AUBREY JOHN KEMPNER, Ph.D., *Instructor*

WILLIAM WELLS DENTON, Ph.D., *Instructor*

EDWARD WILSON CHITTENDEN, Ph.D., *Instructor*

JOSEPHINE ELIZABETH BURNS, Ph.D., *Instructor*

CLARENCE MARK HEBBERT, B.S., *Assistant*

GUY WATSON SMITH, M.S., *Assistant*

HENRY CHARLES ZEIS, A.B., *Assistant*

WILLIAM HAROLD WILSON, A.M., *Assistant*

ROBERT H MARSHALL, A.B., *Assistant*

NATHAN CESSNA GRIMES, A.M., *Assistant*

SUMMER SESSION ONLY

SIDNEY ARCHIE ROWLAND, A.B., *Assistant*

GEORGE RUTLEDGE, A.B., *Research Assistant*

Students who select mathematics as a major subject for a bachelor's degree must take Mathematics 7, 9, and twelve hours chosen either from the courses in mathematics open to undergraduates (not including Mathematics 2, 4, 6, and 8), or from courses open to graduates and undergraduates.

A minor of twenty hours must be selected from the courses offered in astronomy, physics, and chemistry.

2. College Algebra.—*I* or *II*; (3).

Dr. LYTLE and other members of the department

Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.

4. Plane Trigonometry.—*I* or *II*; (2).

Dr. LYTLE and other members of the department

Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.

5. Teachers' Course.—Secondary algebra and geometry educational value; position in course; methods of teaching; correlation; comparison of American methods with those of foreign countries; order of topics; most important topics; text-books; literature. Lectures; discussions; reports. *I*; (2).

Dr. LYTLE

Prerequisite: Junior standing in mathematics.

6. Analytic Geometry.—Plane and solid analytic geometry. *II*; (5).

Professor MILLER and other members of the department

Prerequisite: Mathematics 2, 4.

7-9. Differential and Integral Calculus.—The principles of the differential and integral calculus developed and applied to functions of one and of several variables. (Section A is an honor section and may be selected by those specializing in mathematics or having an average grade of 90 in freshman mathematics.) *I*; (5); *II*; (3).

NOTE.—Two sections of Mathematics 7 are given the second semester.

Professor RIETZ and other members of the department

Prerequisite: Mathematics 6.

8. Differential and Integral Calculus.—A brief course in calculus for students in chemistry and chemical engineering. *I*; (5).

Professor MILLER, Mr. SMITH

Prerequisite: Mathematics 6.

9a. Differential and Integral Calculus (Second Course).—The definite (single and multiple) integral with exercises in the formulation of problems arising in applied mathematics; line, surface, and volume integrals; the theorem of Stokes and Green; partial differentiation; exact differentials with applications of the conditions for exactness; elements of differential questions, approximate quadrature and integration of differential equations. *I*; (2).

Assistant Professor SHAW and members of the department

Prerequisite: Mathematics 7, 9.

10. Theory of Equations and Determinants.—Fundamental properties of an algebraic equation in one unknown; the solutions of systems of simultaneous equations; theory of a system of linear equations; some fundamental properties of determinants. *II*; (3).

Professor MILLER

Prerequisite: Mathematics 6, 7, 9 (or 8).

16-17. Differential Equations and Advanced Calculus.—Ordinary and partial differential equations supplemented by the consideration of special topics of calculus not ordinarily included in a first course, particularly those of value in the applications of mathematics. *I, II*; (3).

Professor TOWNSEND

Prerequisite: Mathematics 7 and 9, (or 8).

18. Constructive Geometry.—Space perception; properties of lines, planes, and the simpler surfaces of the second order studied by methods of

parallel and central projection; graphical interpretation of the processes of analytic geometry; analytic discussion of the methods of descriptive geometry. *I*; (3). Assistant Professor EMCH

Prerequisite: Mathematics 6.

19. Solid Analytic Geometry.—Equations of the plane and right line in space; the more general properties of surfaces of the second degree; the classification and special properties of quadrics; a brief introduction to the theory of surfaces in general. *II*; (3). Assistant Professor SISAM

Prerequisite: Mathematics 7, 9 (or 8), and 10.

21. Method of Least Squares.—Law of probability and error; adjustment of observations; precision of observation; independent and conditional observations. *I*; (2). Professor STEBBINS

Prerequisite: Mathematics 7, 9 (or 8).

23. Averages and the Mathematics of Investment.—Meaning, use and abuse of different kinds of averages; relation of the theory of probability to averages; application of the elements of probability to annuities, insurance, and various branches of science; loans and investments; practical problems in the evaluation of investment securities. *II*; (3). Professor RIETZ

Prerequisite: Mathematics 2; junior standing.

24-25. Functions of a Complex Variable.—*I, II*; (3).

Professor TOWNSEND

Prerequisite: Mathematics 7, 9, 16-17.

27-28. Projective Geometry.—Fundamental concepts; anharmonic ratio; projective pencils and ranges; projective transformations and groups; theory of conics and quadric surfaces; pencils and ranges of conics; quadratic transformations and projective theory of cubics; applications in mechanics. *I, II*; (3). Assistant Professor EMCH

Prerequisite: Senior standing in mathematics.

31. Actuarial Theory.—Application of probability to life contingencies; mortality tables; fire insurance; premiums for various types of insurance. *I*; (3). Professor RIETZ

Prerequisite: Mathematics 7, 9 (or 8), and 23.

32. History of Mathematics.—Historical development of the elementary subjects; rise and growth of the higher mathematics chiefly in the nineteenth century; biography of the persons most influential in this development. Lectures; reports on assigned reading. *II*; (2). Dr. LYTLE

Prerequisite: Junior standing in mathematics.

33-34. Modern Algebra.—Theory of matrices; system of linear equations; bilinear and quadratic forms; properties of polynomials; algebraic invariants; elementary divisors. *I, II*; (3). Dr. BÖRGER

Prerequisite: Mathematics 7, 9, 10.

[40. Fundamental Concepts of Mathematics.—The general concepts of higher mathematics in their bearing on elementary mathematics. *II*; (2). Not given in 1914-15. Dr. LYTLE

Prerequisite: Junior standing in mathematics.]

Courses for Graduates

100. Seminar and Thesis.—*Three times a week; I, II; (1 or 2 units).*

[101. **Functions of Real Variables.**—The theory of functions of real variables; the theory of assemblages. *Three times a week; I, II; (1 unit).* Not given in 1914-15. Professor TOWNSEND

Prerequisite: Mathematics 16.]

[104. **Expansions in Fundamental Functions.**—Theory of integral equations; methods of expansion of arbitrary functions in terms of the characteristic functions of a given nucleus; applications of Green's functions, Potential functions, Fourier series, series of Legendrians, of Bessel functions, and others; differential equations of physics under given boundary conditions; the inversion of definite integrals. *Three times a week, I, II; (1 unit).* Not given, 1914-15. Assistant Professor SHAW]

105. **Calculus of Variations.**—Elements of the science most needed in mathematical astronomy and physics. *I, II; (1 unit).* Dr. CRATHORNE

Prerequisite: Mathematics 16.

[110. **Elliptic Functions.**—Application to geometry and mechanics; the elliptic modular functions. *Three times a week; I, II; (1 unit).* Not given, 1914-15. Assistant Professor EMCH

Prerequisite: Mathematics 24.]

[111. **Automorphic Functions.**—*First semester:* The group-theoretic side of the theory. *Second semester:* Function-theoretic developments and applications. *Three times a week; I, II; (1 unit).* Not given in 1914-15.

Assistant Professor EMCH

Prerequisite: Mathematics 24 and preferably 27 and 110.]

[113. **Theory of Linear Differential Equations.**—*Three times a week; I, II; (1 unit).* Not given in 1914-15. Dr. CRATHORNE

Prerequisite: Mathematics 24.]

120. **Elementary Theory of Groups.**—Groups in arithmetic, geometry, and trigonometry; those which can be represented with a small number of letters; the abstract group theory; the Galois theory of equations. *Three times a week; I, II; (1 unit).* Professor MILLER

[121. **Theory of Groups.**—*Three times a week; I, II (1 unit).* Not given in 1914-15. Professor MILLER

Prerequisite: Mathematics 120.]

[124. **Theory of Numbers.**—Conferences; Kronecker's modular systems; quadratic residues; quadratic forms; algebraic numbers. *Three times a week; I, II; (1 unit).* Not given in 1914-15. Dr. WAHLIN]

[129. **Theory of Statistics.**—Statistical investigation; application of the theory of probability to statistical data; fitting curves to observation; interpolation; theory of errors; mathematical theory of variability and correlation; application of principles developed to problems in economics, sociology, and biology. *Three times a week; I, II; (1 unit).* Not given in 1914-15.

Professor RIETZ

Prerequisite: Mathematics 8.]

[130. **Invariants and Higher Plane Curves.**—Algebraic curves; application of the theory of invariants to higher plane curves; curves of the third and fourth order. *Three times a week; I, II; (1 unit).* Not given in 1914-15.

Assistant Professor SISAM

Prerequisite: Mathematics 16, 27.]

131. Algebraic Surfaces.—Application of homogeneous co-ordinates and the theory of invariants to geometry of three dimensions; general theory of surfaces; special properties of surfaces of the third and fourth order. *Three times a week; I, II; (1 unit).* Assistant Professor SISAM

Prerequisite: Mathematics 19.

[135. Metric Differential Geometry.—Applications of the calculus to the general theory of curves and surfaces based primarily on the use of Cartesian co-ordinates; relation of the theory of surfaces to the theory of invariants of a pair of quadratic differential forms. *Three times a week; I, II; (1 unit).* Not given, 1914-15. Assistant Professor SISAM

Prerequisite: Mathematics 16.]

141. Vector Methods.—The algebras of quaternions, space analysis, and dyadics, development of theorems of differentiation and integration, applications to rational mechanics, elasticity, hydrodynamics, electrodynamics. *Three times a week; I, II; (1 unit).* Assistant Professor SHAW

Prerequisite: Mathematics 16.

142. General Algebra.—Theory of linear associative algebra or hypercomplex numbers, with particular study of the systems useful for the geometry and physics of N dimensions. Applications to relativity theories, and to general differential and integral invariants. Theory of linear operators and functional equations; applications to general analysis, integro-differential equations, infinite systems. General theory of operators; applications to general invariant theories. *Three times a week; I, II; (1 unit).*

Assistant Professor SHAW

SUMMER SESSION COURSES

S 2. College Algebra.—(Equivalent to the regular university course.) Rietz and Crathorne's *College Algebra*. (3). Dr. WAHLIN

Prerequisite: $2\frac{1}{2}$ units entrance mathematics.

S 4. Plane Trigonometry.—(Equivalent to Mathematics 4.) Kenyon and Ingold's *Trigonometry*. (2). Dr. LYTLE

Prerequisite: $2\frac{1}{2}$ units entrance mathematics.

S 6. Analytical Geometry.—(Equivalent to Mathematics 6.) An introductory course in plane and solid analytic geometry. Ziwet and Hopkins' *Analytic Geometry*. (5). Dr. KEMPNER

Prerequisite: Mathematics 2 and 4.

S 7. Differential Calculus.—(Equivalent to Mathematics 7). Course in beginning calculus. Townsend and Goodenough's *Essentials of Calculus*. (5). Mr. RUTLEDGE

Prerequisite: Mathematics 6.

S 9. Integral Calculus.—(Equivalent to Mathematics 9). Townsend and Goodenough's *Essentials of Calculus*. (3). Mr. ROWLAND

Prerequisite: Mathematics 7.

S 5. Teachers' Course.—(Equivalent to Mathematics 5). Secondary algebra and geometry; their educational values; position in course; methods of teaching; correlation; comparison of American methods with those of foreign countries; order of topics; most important topics; text-books; literature. Lectures, discussions, reports. (2). Dr. LYTLE

***S 33. Modern Algebra.**—Theory of matrices; systems of linear equations; bilinear and quadratic forms; properties of polynomials; algebraic invariants; elementary divisors. Bôcher's *Introduction to Higher Algebra*. (3).

Dr. WAHLIN

Prerequisite: Mathematics 9, 10.

MECHANICAL ENGINEERING

CHARLES RUSS RICHARDS, M.M.E., *Professor*

GEORGE ALFRED GOODENOUGH, M.E., *Professor, Thermodynamics*

BRUCE WILLET BENEDICT, B.S., *Director, Shop Laboratories*

LEWIS ALLEN HARDING, M.E., *Professor, Experimental Mechanical Engineering*

OSCAR ADOLPH LEUTWILER, M.E., *Assistant Professor, Machine Design*

ARTHUR CUTTS WILLARD, B.S., *Assistant Professor, Heating and Ventilation*

JOHN ADLUM DENT, M.E., *Associate*

GEORGE BENJAMIN RICE, *Lecturer on the Installation and Operation of Mechanical Equipment for Buildings, and Assistant Mechanical Engineer in the Office of the Supervising Architect*

HARRY FREDERICK GODEKE, B.S., *Instructor*

EDWIN FRANK, B.S., *Instructor*

ARTHUR BOQUER DOMONOSKE, M.S., *Instructor, Machine Design*

HARRY WILLIAM WATERFALL, B.S., *Instructor, Machine Design*

FREDERICK CALKINS TORRANCE, M.E., *Instructor*

HORATIO SPRAGUE McDOWELL, M.M.E., *Instructor*

ALONZO PLUMSTED KRATZ, M. S., *First Assistant, Engineering Experiment Station*

EDGAR THOMAS LANHAM, *Instructor, Forge Practise*

ROBERT EDWIN KENNEDY, *Instructor, Foundry Practise*

GUSTAVE ADOLPH GROSS, *Instructor, Pattern Making*

GUSTAV HOWARD RADEBAUGH, *Instructor, Machine Practise*

JAMES HARVEY HOGUE, *Instructor, Foundry Practise*

LEROY ALONZO WILSON, M.M.E., *Assistant, Engineering Experiment Station*

JAMES MERION DUNCAN, *Assistant, Pattern Making*

PETER JOSEPH REBMAN, *Assistant, Forge Practise*

JOHN ALEXANDER FRISK, *Assistant and Mechanician*

1. Steam and Air Machinery.—The construction, operation, and care of boilers, engines, and air compressors; elementary thermodynamics; steam engine performance; transmission of compressed air and its applications. (For students in civil and mining engineering.) *I*; (3). Mr. DENT, Mr. McDOWELL

Prerequisite: Junior standing.

2. Steam Engineering.—Engines, boilers, pumps, condensers, and other steam machinery. *II*; (3). Mr. DENT, Mr. GODEKE, Mr. WATERFALL

Prerequisite: Physics 1a-1b, 3a-3b.

4. Elements of Machine Design.—Design of machine elements: bolts keys, journals, bearings, couplings; forms of gear teeth; spur and bevel gears. *I*; (2). Mr. DOMONOSKE, Mr. WATERFALL

Prerequisite: General Engineering Drawing 1, 2.

6a. Heat Engines.—Flow of fluids; steam turbine air compressors and refrigerating machinery. *I*; (3). Professor GOODENOUGH

Prerequisite: Mechanical Engineering 12.

6b. Gas Engines.—Types of gas engines; mixtures of gases; combustion of gaseous fuels; gas producers. *II*; (2). Professor RICHARDS

Prerequisite: Mechanical Engineering 6a.

8. Mechanics of Machinery.—Friction in machine parts; useful application of friction as in friction clutches and brakes; transmission of power by ropes and belting; brakes, clutches, and dynamometers; hoisting machinery; hoisting in mines; elevators and cranes. *I*; (3).

Assistant Professor LEUTWILER

Prerequisite: Theoretical and Applied Mechanics 29, 27; Mechanical Engineering 30, 12.

9. Machine Design.—Theory of machine design, with application; investigation of actual machines similar to the one to be designed; design of machinery subjected to heavy and variable stresses; punches, shears, presses, riveters, and cranes. *I*; (3).

Assistant Professor LEUTWILER, Mr. DOMONOSKE, Mr. WATERFALL

Prerequisite: Theoretical and Applied Mechanics 21, 29; Mechanical Engineering 4, 30.

12. Thermodynamics.—The transformation of heat into work; the second law and its connection with irreversible processes; the properties of heat media; the perfect gases; saturated and superheated vapors; the flow of fluids. *II*; (5).

Professor GOODENOUGH

Prerequisite: Mathematics 9a; Theoretical and Applied Mechanics 27.

13. Mechanical Engineering Laboratory.—The testing and calibration of instruments and apparatus; use of the indicator; calculation of horse-power and steam consumption; reading of indicator diagrams; valve setting. (For students in electrical engineering.) *II*; (3). Professor HARDING and others

Prerequisite: Mechanical Engineering 1.

15. Thermodynamics and Heat Engines.—(For students in electrical engineering.) *I*; (5).

Mr. DENT, Mr. McDEWELL

Prerequisite: Mechanical Engineering 1 or 2.

19. Seminar.—Papers on subjects relating to current engineering practise; the indexing of current engineering literature. Open to seniors only. *I*; (1).

Professor HARDING

25. Heating and Ventilation for Architects.—The theory and the application of the principles of heating and ventilation to modern practise. Direct and indirect steam and hot water heating; furnace heating; ventilation and air analysis; air condition; temperature and humidity control. *I*; (2).

Assistant Professor WILLARD

Prerequisite: Senior standing.

26. Heating and Ventilation.—The theory and the application of the principles of heating and ventilation to modern practise. Steam boilers and water heaters of steel and cast iron for heating service; heat losses from buildings; direct and indirect steam and hot water heating, using gravity systems; furnace heating; fan blast or mechanical indirect systems; exhaust steam heating; district heating by steam and water; ventilation and air analysis; air conditioning; temperature and humidity control. *I* or *II*; (3).

Assistant Professor WILLARD, Mr. TORRANCE

Prerequisite: Senior standing.

30. Mechanics of Machinery.—Mechanisms and mechanical movements; cams, gears, valve gears, and quick-return motions; graphical constructions for displacement, velocity, and acceleration; kinetics of the steam engine mechanism and similar mechanisms; balancing; critical speeds; force and mass reduction. *II*; (5). Mr. DENT

Prerequisite: Theoretical and Applied Mechanics 27.

36. Industrial Plant Design.—Design and equipment of industrial plants. Design of buildings, heating, ventilation, lighting, power generation, and transmission; drying processes, etc. *II*; (3). Professor HARDING

Prerequisite: Mechanical Engineering 9.

[37. Science of Management.—Industrial development; modern industrial tendencies; principles of organization; selection and compensation of labor; application of science to industrial problems; practical shop systems of management; production. *I*; (3). Not given, 1914-15. Director BENEDICT

Prerequisite: Mechanical Engineering 81, 82.]

52. Power Plant Design.—Study and design of some form of steam power plant. *II*; (3).

Assistant Professor LEUTWILER, Mr. GODEKE, Mr. DOMONOSKE

Prerequisite: Mechanical Engineering 9 and 65.

64. Power Measurement.—Apparatus for engine and boiler tests—scales, thermometers, indicators, brakes and dynamometers, gauges, calorimeters; methods of calibrating and using such apparatus; tests for horse-power of steam engines, pumps, and gas engines. Reports. *II*; (3).

Professor HARDING, Mr. GODEKE, Mr. TORRANCE, Mr. McDWELL, Mr. FRANK

Prerequisite: Mechanical Engineering 2; Mathematics 9.

65. Mechanical Engineering Laboratory.—Experiments on engines, turbines, gas engines, pumps, boilers, injectors, air compressors, hoisting appliances, heating apparatus, and the refrigerating machines. *I*; (3).

Professor HARDING and others

Prerequisite: Mechanical Engineering 64, 12.

66. Advanced Laboratory Practise.—Special research work in the mechanical engineering laboratory. Open to seniors only. *II*; (2).

Professor HARDING

Prerequisite: Mechanical Engineering 65.

67. Heating and Ventilating Laboratory.—Calibration of instruments; performance and efficiency tests of radiators, heating boilers, heat and vent flues, centrifugal fans, and air washer; heat transmission tests of building materials; tests to determine pressure drop in pipe lines for air and water. *I*; (1).

Assistant Professor WILLARD

Prerequisite: Senior standing.

71. Forge Work for Agricultural Students.—Forging and welding; tempering tools; pointing and hardening cultivator shovels, plow shares. *Six hours a week, either half of I or II*; (1). Mr. LANHAM, Mr. REBMAN

73. Wood Work for Agricultural Students.—Carpentry for the farmer; use of tools; layout and construction of building joints; repairs to buildings and equipment. *Six hours a week, either half of I or II*; (1).

Mr. GROSS, Mr. DUNCAN

75. Forge Work.—(9 weeks.) Hand and power forging and welding of metals; heat treatment of carbon and high speed steels in modern, gas, electric, and cyanide furnaces; case carbonizing. *I or II; (1).*

Mr. LANHAM, Mr. REBMAN

77. Foundry Work.—(9 weeks.) Modern foundry practise; bench, floor, and machine moulding; all branches of core making; operation of cupola and brass furnace; casting of iron, brass, and alloys. *I or II; (2).*

Mr. KENNEDY, Mr. HOGUE

79. Pattern Work.—(18 weeks.) Hand and machine methods in the production of useful patterns. *I or II; (3).*

Mr. GROSS, Mr. DUNCAN

81. Machine Work.—Modern manufacturing methods; machine operation; shop management; organization; production methods; dispatching work; ordering, storing, and routing materials; time studies; shop accounting; inspection and all activities of the machine department of a manufacturing plant. *I; (3).*

Director BENEDICT, Mr. RADEBAUGH

82. Machine Work.—(Continuation of 81.) *II; (2).*

Director BENEDICT, Mr. RADEBAUGH

99. Thesis.—Investigation of special subject and preparation of thesis embodying a review of the literature of the subject, the results of investigation, and a discussion of those results. *II; (3).*

Professor RICHARDS, Professor GOODENOUGH, Director BENEDICT, Professor HARDING and others

Courses for Graduates

Entrance upon graduate work in mechanical engineering presupposes the full undergraduate course in that subject.

106. Heat Motors.—The internal combustion motor; steam turbine. Principles and methods of refrigeration. *Twice a week; (1 unit).*

Professor GOODENOUGH

107. Thermodynamics.—Thermodynamics; their application to the solution of physical and engineering problems. *Twice a week; I; (1 unit).*

Professor GOODENOUGH

109. Machine Design.—Rational design; the application of mechanics of materials. Individual problems. *Twice a week; I or II; (1 unit).*

Assistant Professor LEUTWILER

112. Laboratory Investigation.—Combustion of fuel; boiler economy; steam engines and turbines; gas engines and producers; properties of explosive mixtures; mechanical refrigeration. Original work. *Three times a week; I, II; (1½ units).*

Professor RICHARDS, Professor HARDING

114. Dynamics of Machinery.—Advanced problems. Balancing; whirling and vibration of shafts; theory of governors; fly wheels; force and mass reduction; stresses in rotating masses. *Twice a week; I, II; (1 unit).*

Professor GOODENOUGH

SUMMER SESSION COURSES

S 1. Pattern Shop Practise.—The production of patterns by modern methods applied to use of hand and machine tools. *(3).*

Mr. GROSS

S 3. Machine Shop Practise.—Modern manufacturing methods; machine operation, shop management, organization, production methods, dispatching work, ordering, storing and routing materials, time studies, shop accounting, inspection and all activities of the machine department of a manufacturing plant. (3).
Mr. RADEBAUGH

MECHANICS, THEORETICAL AND APPLIED

ARTHUR NEWELL TALEBOT, C.E., *Professor, Municipal and Sanitary Engineering; in charge of Theoretical and Applied Mechanics*
HERBERT FISHER MOORE, M.M.E., *Professor*
MELVIN LORENIUS ENGER, C.E., *Assistant Professor*
VIRGIL R FLEMING, B.S., *Associate*
CLARENCE EUGENE NOERENBERG, A.B., A.E., *Instructor*
FRED B SEELY, B.S., *Instructor*
GEORGE PAUL BOOMSLITER, M.S., *Instructor*
NEWTON EDWARD ENSIGN, A.B., B.S., *Instructor*
HARRY GARDNER, M.S., *Instructor*
ALEX VALLANCE, M.E., *Instructor*
WILLIAM JAMES PUTNAM, B.S., *Instructor*

SUMMER SESSION ONLY

HARRISON FREDERICK GONNERMAN, M.S., *Instructor*

10. Hydraulics.—The pressure and flow of water; its utilization as motive power; observation and measurement of pressure, velocity, and flow; power and efficiency; determination of experimental coefficients. Hoskins' *Hydraulics. Laboratory weekly; II; (3).* Professor MOORE and others
Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 21.

14. Elements of Mechanics.—Kinematics, kinetics, and statics. (For architects and others who have not taken the calculus.) Morley's *Mechanics for Engineers, II; (4).* Mr. BOOMSLITER, Mr. GARDNER
Prerequisite: Mathematics 2, 4.

15-16. Strength of Materials.—Graphical methods of determining the elastic curve of beams; centroids and moments of inertia of areas; reinforced concrete beams and columns; properties and tests of engineering materials. (For students in architecture and others without the prerequisites required for Theoretical and Applied Mechanics 29.) Murdock's *Strength of Materials. Laboratory every other week; I, II; (3).* Mr. NOERENBERG and others
Prerequisite: Theoretical and Applied Mechanics 14.

20. Analytical Mechanics.—The mechanics of engineering rather than that of astronomy and physics. Fundamental concepts; equilibrium, centroids and center of gravity, friction; engineering problems; statement of conditions and use of data. Maurer's *Technical Mechanics. II; (3).*
Mr. NOERENBERG and others
Prerequisite: Mathematics 7, registration in Mathematics 9.

21. Analytical Mechanics.—Continuation of Theoretical and Applied Mechanics 20. Kinematics and kinetics. Maurer's *Technical Mechanics. I; (2).*
Mr. NOERENBERG and others
Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20.

25. Resistance of Materials.—A briefer course than Theoretical and Applied Mechanics 29. (For students in architectural engineering, ceramic and chemical engineering, electrical engineering, and mining engineering.) Merri-man's *Mechanics of Materials*. I; (4).

Assistant Professor ENGER and others

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20.

26. Analytical Mechanics and Hydraulics.—Kinematics, kinetics, and hydraulics; problems; experiments in the hydraulic laboratory. (For students in architectural engineering, electrical engineering, and mining engineering.) Maurer's *Technical Mechanics*, Hoskins' *Text-Book on Hydraulics*. *Laboratory weekly during the last half of semester*. II; (4).

Assistant Professor ENGER

Prerequisite: Theoretical and Applied Mechanics 25.

27. Analytical Mechanics.—Kinetics and kinematics. A longer course than Theoretical and Applied Mechanics 21. (To be given to mechanical engineering students during the transition period of changing courses.) Slocum's *Theory and Practise of Mechanics*. I; (3).

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20.

29. Resistance of Materials.—The mechanics of materials; the properties and requirements for materials of construction; the effect of methods of manufacture upon the quality of the material; specifications and standard tests; experiments and investigations in the materials laboratory. (For students in civil engineering, mechanical engineering, and municipal and sanitary engineering.) Merriman's *Mechanics of Materials*. Recitations, lectures, and assigned reading; *laboratory weekly*. I; (5).

Professor TALBOT and others

Prerequisite: Mathematics 9; Theoretical and Applied Mechanics 20; registration in Theoretical and Applied Mechanics 21.

36. Analytical Mechanics.—The portion of T. & A. M. 26, which involves analytical mechanics. (Open only to railway electrical engineering students.) Maurer's *Technical Mechanics*. II; (2).

Prerequisite: Theoretical and Applied Mechanics 25.

Courses for Graduates

Entrance upon graduate work in theoretical and applied mechanics presupposes a full undergraduate course in that subject.

101. Analytical Mechanics.—Methods; problems and applications; critical and comparative study of texts. *Twice a week; I; (1 unit)*.

Professor MOORE

102. Resistance of Materials.—Properties of materials used in engineering construction and the methods of determining these properties; analysis and investigation in mechanics of materials; the effect of form of member in a structure or machine; the method of application of forces; comparative study of texts. *Twice a week; II; (1 unit)*.

Professor MOORE

103. Hydraulics and Hydraulic Engineering.—The laws of hydraulics and their application to engineering problems; hydraulic power and its development; design and investigation. *Twice a week; II; (1 unit)*.

Professor TALBOT

104. Experimental Work in the Laboratory of Applied Mechanics.—Investigation on materials and on their action as used in machines and struc-

tures; experiments with pumps, motors, and measuring devices; investigation of the laws of hydraulics, the development of power, and the study of various hydraulic problems. *Twice a week; I, II; (½ unit to 2 units).*

Professor MOORE

105. Experimental and Analytical Work in Reinforced Concrete.—Research: interpretation of available experimental results and their application to the design of structures; principles of construction. *Twice a week; I, II; (½ unit or more).*

Professor TALBOT

SUMMER SESSION COURSES

S 7. Analytical Mechanics.—The first half of Analytical Mechanics as given in Maurer's *Technical Mechanics*. (3).

Mr. ENSIGN

Prerequisite: Mathematics 7 and registration in Mathematics 9.

S 8. Analytical Mechanics.—The second half of Analytical Mechanics as given in Maurer's *Technical Mechanics*. (2½.)

Mr. SEELY

Prerequisite: Mathematics 9 and T. & A. M. 7.

S 9. Resistance of Materials.—The mechanics of materials; experiments and investigations to verify the experimental laws; problems in ordinary engineering practise. Merriman's *Mechanics of Materials*. (3½.)

Mr. SEELY, Mr. GONNERMAN

Prerequisite: T. and A. M. 7 and registration in T. and A. M. 8.

S 10. Hydraulics.—The pressure and the flow of water; its utilization as motive power; observation and measurement of pressure, velocity, and flow, in power and efficiency; determination of experimental coefficients. Hoskins' *Hydraulics*. (3.)

Mr. GONNERMAN

Prerequisite: T. and A. M. 8.

NOTE— With the opening of the hydraulic laboratory for the Summer Session, arrangements may be made to use its facilities for special experimental work.

S 14. Elements of Mechanics.—Kinematics, kinetics, and statics and their application. Moreley's *Mechanics for Engineers*. (For architects and others who have not taken the calculus.) (4.)

Mr. ENSIGN

Prerequisite: Mathematics 2, 4.

MEDICINE

(See under COLLEGE OF MEDICINE)

METEOROLOGY

(See under GEOLOGY)

MILITARY SCIENCE

FRANK DANIEL WEBSTER, Major U. S. Infantry, *Professor and Commandant*
 FREDERICK WILLIAM POST, 1st Sergeant, U. S. A., retired, *Administrative Assistant*
 JOSEPH NATHANIEL GREENE, *Assistant*
 AUGUSTUS HENRY GRUNEWALD, *Assistant*
 EDWARD CHARLES ELLES, *Assistant*
 WALTER CLARK ARMSTRONG, *Assistant*
 ERNEST HOWARD POOL, *Assistant*
 CLIFFORD F HOOD, *Assistant*

LLOYD DUNAWAY KNAPP, *Assistant*
 HAROLD EDWARD BARDEN, *Assistant*
 JOSEPH COLUMBUS HOSTETLER, *Assistant*
 ROE NIVER, *Assistant*

1. **Theoretical Instruction.**—Infantry Drill Regulations. For all freshmen men. *II*; (1). Professor WEBSTER

2a-2b-2c-2d. **Practical Instruction.**—*Infantry*—School of the soldier; company and battalion; regimental ceremonies. *Artillery*—School of the cannoneer and battery dismounted. Freshmen and sophomore years. One and one-half hours' drill each week until March 15; after that date, three hours each week. *I, II*; (1). Professor WEBSTER

3. **Theoretical Instruction.**—For sophomores: Drill Regulations and Military Administration. For juniors and seniors: Field Service Regulations; Field Engineering. This course is obligatory upon commissioned officers and sergeants, recommended to corporals, and open to others. *I, II*. Professor WEBSTER

AUTHORIZED TEXT-BOOKS.—Infantry Drill Regulations; Army Regulations; Field Service Regulations; Guard Manual; Small Arm Firing Regulations; Manual of Military Training.

MINERALOGY

(See GEOLOGY 5, 5a, 6, 7)

MINING ENGINEERING

HARRY HARKNESS STOEK, B.S., E.M., *Professor*
 ROBERT YOUNG WILLIAMS, A.B., E.M., *Director, Miners and Mechanics Institutes*

ELMER ALLEN HOLBROOK, B.S., *Assistant Professor*
 STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., *Associate*
 ALFRED COPELAND CALLEN, E.M., M.S., *Instructor*

1. **Earth and Rock Excavation.**—Explosives; blasting; drilling; boring; tunneling; shaft sinking; coal cutting; timbering; prospecting. *II*; (3). Mr. CALLEN

Prerequisite: Chemistry 1a or 1b.

2. **Elementary Mining Principles.**—General processes, terminology. Lectures; trips of inspection. *I* or *II*; (1). Professor STOEK

3. **Mining Principles.**—Terminology; explosives; blasting; drilling; tunneling; shaft-sinking; mining and timbering of flat deposits. (For students in ceramics, and engineering courses other than mining.) *I*; (2). Mr. CALLEN

Prerequisite: Chemistry 1a or 1b.

4. **Mining Methods.**—Mining and timbering of bedded, vein, and placer deposits. *II*; (2). Professor STOEK

Prerequisite: Mining Engineering 2.

5. **Mine Ventilation.**—Mine gases; safety lamps; mine ventilation; mine lighting; explosions in mines; mine fires; rescue work; first aid. *I*; (2). Professor STOEK, Mr. CALLEN

Prerequisite: Chemistry 1a or 1b.

6a-6b. **Mechanical Engineering of Mines.**—Hoisting: ropes, cages, hoisting engines, and other appliances. Haulage: the different systems used

underground and on the surface; the methods of loading and unloading; mine stables; transportation of workmen. Signaling. Drainage of mines: mine dams, mine pumps. *I*; (3), *II*; (2). Mr. CALLEN

Prerequisite: Mechanical Engineering 1, or equivalent.

8. Mine Administration, Organization, and Mining Law.—Mining companies. Trade agreements—relations between employers and employees. Transportation and marketing. The general mining laws of the several states, with particular attention to those of Illinois. *II*; (2). Professor STOEK

9. Preparation of Coal and Ores.—Coal washing: history, application, principles, processes, and machines used in the preparation and washing of anthracite and bituminous coal; American and foreign practise. Breaking, pulverizing, and concentrating ores and mineral products. *I*; (3).

Assistant Professor HOLBROOK

Prerequisite: Chemistry 1a or 1b, 2 and 3; Physics 1a-1b and 3a-3b.

13. Utilization of Fuels.—The manufacture, handling, and utilization of wood, charcoal, peat, lignite, bituminous and anthracite coal, coke, petroleum, natural and artificial gas, and refractories in mining and metallurgical practise. *II*; (2).

Assistant Professor HOLBROOK

41. Mine Design.—Framed structures; design of mine structures of wood, steel, and masonry. Tipple arrangements; rock houses; ore bins; general surface plant; design and drafting of mining and metallurgical plant. *I*; (3).

Assistant Professor HOLBROOK

Prerequisite: Civil Engineering 60.

42. Mine Plant.—General layout; design; estimates for construction; specifications for mining and metallurgical plants. *II*; (2).

Assistant Professor HOLBROOK

Prerequisite: Mining Engineering 41^o.

62. Mine Surveying.—The application of surveying methods to mine work; instruments employed underground and in connecting surface and underground surveys; the platting and use of mine maps; mineral land surveying; the theory and use of solar attachments; determination of the meridian; stadia; application of topographic and railroad surveying to mining conditions; estimation and prospecting of mineral deposits. *II*; (4).

Mr. CALLEN

Prerequisite: Civil Engineering 27.

64. Mining Laboratory.—Different coals; their availability for washing; complete commercial tests, using small commercial machines wherever possible; design of flow sheets; analysis of products; briquetting of fuels; concentration tests on a lead, zinc, or iron ore; amalgamation and cyanidation of a gold ore. *II*; (2).

Assistant Professor HOLBROOK

Prerequisite: Mining Engineering 9.

90. Seminar.—Review of mining literature; reports. *II*; (1).

91. Seminar.—Review of mining literature; reports. *I*; (no credit).

100. Thesis.—Individual investigation; preparation of thesis giving review of the literature, results of experimental work, and general discussion. *II*; (3).

(Hours arranged when thesis is permitted, in accordance with regulations of the College of Engineering.)

Courses for Graduates

Entrance upon graduate work in mining engineering presupposes a full undergraduate course in that subject.

101. Advanced Mining Methods.—Coal and ore fields of the United States; methods and economics of mining; utilization, marketing, storage, and transportation of coal and ores. *Twice a week; I; (1 unit). II; (1 unit).*

Professor STOEK

102. Advanced Preparation of Coal and Ores.—Settling ratios, laws of crushing; sorting vs. sizing; mill and washing problems. *Twice a week; I; (1 unit). II; (1 unit).*

Assistant Professor HOLBROOK

103. The History of Miners' Organizations; Their Effect Upon the Development of Mining Practise.—*Twice a week; I; (1 unit). II; (1 unit).*

Professor STOEK

104. Mining Reports.—The law of apex, the classification of coal and ore lands; conservation of mineral resources; mine examination and report. *Twice a week; I; (1 unit).*

Professor STOEK

MODERN LANGUAGES

(See ENGLISH LANGUAGE AND LITERATURE, GERMANIC LANGUAGES AND LITERATURE, and ROMANCE LANGUAGES AND LITERATURE.)

MUNICIPAL AND SANITARY ENGINEERING

ARTHUR NEWELL TALBOT, C.E., *Professor*

MELVIN LORENIUS ENGER, B.S., C.E., *Assistant Professor, Theoretical and Applied Mechanics*

PAUL HANSEN, B.S., *Associate*

HAROLD EATON BABBITT, B.S., *Instructor*

2. Water Supply Engineering.—Source of supply; hydraulics of wells; stream flow; impounding and storage reservoirs; conduits and pipe lines; pumps and pumping machinery; stand-pipes and elevated tanks; the distribution system; tests and standards of purity of potable water. Designing weekly. *Tur-neau and Russell's Public Water Supplies. I; (4).*

Assistant Professor ENGER, Mr. BABBITT

Prerequisite: Theoretical and Applied Mechanics 29, 10; Chemistry 1; Mechanical Engineering 1.

3. Sewerage.—The design and methods of construction of sewerage systems; sanitary necessity of sewerage; water carriage systems, both separate and combined; surveys and general plans; hydraulics of sewers; house sewage and its removal; relation of rainfall to storm water flow; determination of size and capacity of sewers; forms and strength of sewer appurtenances; modern methods of sewage disposal; estimates and specifications. Designing weekly. *Folwell's Sewerage; II; (3).*

Mr. BABBITT

Prerequisite: Theoretical and Applied Mechanics 29, 10; Chemistry 1; Municipal and Sanitary Engineering 2.

6a-6b. Water Purification, Sewage Disposal, and General Sanitation.—Impurities in water supplies and methods and processes of their removal; sewage disposal by filtration, chemical precipitation, irrigation; representative purifi-

cation plants; garbage collection and disposal; sanitary restrictions and regulations and general sanitation. Lectures; seminar work; drafting. *I*; (3), *II*; (2).

Professor TALBOT, Mr. HANSEN, Mr. BABBITT

Prerequisite: Municipal and Sanitary Engineering 2, 3; Chemistry 1, 3, 10b.

7. Water Supply Engineering.—(Similar to Municipal and Sanitary Engineering 2, for students in sanitary science.) Designing weekly. Turneaure and Russell's *Public Water Supplies*. *I*; (4).

Mr. BABBITT

Prerequisite: Theoretical and Applied Mechanics 10; Chemistry 3.

8. Sewerage.—(Similar to Municipal and Sanitary Engineering 3, for students in sanitary science.) Designing weekly. Folwell's *Sewerage*. *II*; (3).

Mr. BABBITT

9. Hydraulic Design and Construction.—Reservoirs, dams, conduits, and waterways; hydraulic engineering problems. *II*; (2).

Assistant Professor ENGER

30. Thesis.—Investigation or design of an engineering problem. *II*; (2).

Professor TALBOT, Mr. BABBITT

Courses for Graduates

Entrance upon graduate work in municipal and sanitary engineering presupposes a full undergraduate course in that subject.

102. Water Supply Engineering.—Water supply; general water-works construction; pumps and pumping; design of reservoirs and elevated tanks; water-works operation and the valuation of plants. *One to three times a week; I or II; (1 unit)*.

Professor TALBOT

103. Sewerage.—Design and construction; systems; hydraulics of sewers; a study of run-off. *Once or twice a week; II; (1 unit)*.

Professor TALBOT

106. Water Purification, Sewage Disposal and General Sanitation.—The design, construction, and operation of water purification plants and of sewage disposal works; the study of existing plants; comparison of results and cost of construction and operation; experimental work on water filters and septic tanks; garbage disposal; general sanitation. *Once a week; II; (½ unit)*.

Professor TALBOT

MUSIC

JOHN LAWRENCE ERB, F.A.G.O., *Director, University Organist*

GEORGE FOSS SCHWARTZ, A.M., Mus.B., *Assistant Professor, Theory and History of Music*

CONSTANCE BARLOW-SMITH, *Assistant Professor, Sight-Singing, Ear Training, Public School Music*

HENRI JACOBUS VAN DEN BERG, *Instructor, Piano*

ALBERT AUSTIN HARDING, *Instructor, Wind Instruments, Director of the Band*

FLORENCE MARY KIRKUP, *Instructor, Voice*

EDSON WILFRED MORPHY, *Instructor, Violin*

EDNA ALMEDA TREAT, Mus.B., *Instructor, Piano*

LOWELL LESLIE TOWNSEND, A.M., *Instructor, Piano*

HEBER DIGNAM NASMYTH, *Instructor, Voice*

ANNA VIOLA SIMON, *Instructor, Voice*

SUMMER SESSION ONLY

ADELINE BRAINARD, *Assistant*

History and Theory

1-2. History of Music.—The development of music; the rise of polyphony and dramatic music; the origin and progress of the oratorio; the evolution of instruments and instrumental forms; the lives of composers. Lectures; assigned collateral readings. *I, II; (2).* Assistant Professor SCHWARTZ

3-4. Harmony.—*I, II; (2).*

Assistant Professor SCHWARTZ

5-6. Advanced Harmony.—*I, II; (3).*

Assistant Professor SCHWARTZ

7-8. Counterpoint, Canon, and Fugue.—*I, II; (3).*

Director ERB

9-10. General Theory, Free Composition.—*I, II; (2).*

Director ERB

11-12. Acoustics.—*I, II; (1).*

Director ERB

Piano¹

Director ERB, Mr. VAN DEN BERG, Miss TREAT, Mr. TOWNSEND

41a-41b, 41c-41d, 41e-41f. Preparatory Course: Three Years.—Special attention is given to the formation of a correct touch and technique, and to intelligence in interpretation. In the examination at the conclusion of the course students are required to play: Simple scales and arpeggios at fairly rapid tempo; scales in double octaves at a moderate speed; Bach, *little preludes and fugues*; Czerny, *Op. 229*; an early sonata of Haydn. *I, II; (no collegiate credit).*

42a-42b. First Year.—Development of technique; scales and arpeggios in various forms; *Etudes*; Bach, *Two-part inventions*; sonatas of Haydn and Mozart; earlier sonatas of Beethoven; Mendelssohn, selected compositions. *I, II; (6).*

46a-46b. One Year.—The first year's work in piano taken as a minor by senior collegiate students majoring in voice or violin. *I, II; (2).*

43a-43b. Second Year.—Development of technique; scales in double thirds; Bach, *Three-part inventions*; selections from *French and English Suites*; sonatas and other compositions. *I, II; (6).*

44a-44b. Third Year.—Development of technique; scales in double sixths; *Octave Studies, Bk. II*; Bach, *Welltempered Clavichord*; Clementi, sonatas and concertos; selected compositions. *I, II; (6).*

45a-45b, 46a-46b, 47a-47b. Fourth Year: Daily Studies.—Tausig-Ehrlich, *Bk. II* and Brahms; *Octave Studies*, Chovan, Sinding, and others; *Etudes*, Chopin, Alkan, Liszt, Godowsky, and Rubinstein. Selections and concertos. *I, II; (6).*

Voice²

Mr. NASMYTH, Miss KIRKUP, Miss SIMON

51a-51b, 51c-51d, 51e-51f. Preparatory Course: Three Years.—The fundamental principles of voice culture, viz., correct breathing and the proper placing of the voice. In the examination at the conclusion of the course students are required to sing: Simple scales and arpeggios; studies selected from Concone, Sieber, Panoika, and Panseron; songs selected from Schubert, Schumann, and Mendelssohn. *I, II; (no collegiate credit).*

¹Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.

²Students who major in piano and who are taking Music 45 are required to take Music 24.

52a-52b. First Year.—Fundamental principles of tone production, simple exercises for breath control; vocalises; songs; Lieder; for enunciation, and interpretation. Vocal hygiene, and physiology of the vocal organs. *I, II; (6).*

53a-53b. Second Year.—Tone production (continued), breath control, scales, and arpeggios for flexibility, poise and sustained tone; vocalises; vocal hygiene; sacred and secular songs and ballads; classical German Lieder. *I, II; (6).*

54a-54b. Third Year.—Advanced exercises for tone production, and breath control in public singing; vocalises continued; vocal hygiene; simple arias from oratorios and operas. Advanced songs in English, French, German, and Italian. Lieder selected from Mendelssohn, Brahms, Grieg, Dvorak, Schubert, Schumann, Hugo, Wolff, and Richard Strauss. *I, II; (6).*

55a-55b.¹ Fourth Year.—Preparation for graduation; deportment; diction, interpretation, public recital, the advanced lieder, oratorio, and operatic arias, and classical and modern. *I, II; (6).*

56a-56b. Voice: One Year.—The first year's work in voice taken as a minor by senior collegiate students majoring in piano or violin. *I, II; (2).*

57a-57b. Voice.—For students from other departments of the University. *I, II; (no credit).*

Violin²

Mr. MORPHY

61a-61b. Preparatory Course: First Year.—*Methods:* Gruenberg; Sevcik; F. Hermann; Wohlfahrt, R. Hoffmann, selected compositions.

61c-61d. Preparatory Course: Second Year.—*Methods:* Gruenberg, Sevcik, Kayser, Wohlfahrt, Alard, selected compositions. *I, II; (no credit).*

61e-61f. Preparatory Course: Third Year.—*Methods:* Gruenberg, Schradieck, Sevcik. *Etudes:* Kayser, Dont, Wohlfahrt, selected compositions. *I, II; (no credit).*

62a-62b. First Year.—David, *Violin School*; Gruenberg, *Foundation Exercises*; Schradieck, *Violin Technics*. *Etudes:* Kreutzer, E. Herrmann, Sevcik. *Compositions:* Mozart, *Sonatas and selected compositions*. *I, II; (6).*

63a-63b. Second Year.—David, *Violin School*; Sevcik, Gruenberg, Singer, Kreutzer, Libon, Alard, *Compositions:* Beethoven, *Sonatas and selected compositions*. *I, II; (6).*

64a-64b. Third Year.—David, *Violin School*; Sevcik, Gruenberg. *Etudes:* Kreutzer, Rodes, Fiorillo, Sevcik, Rovelli. *Compositions:* Bach, *Concertos*, Beethoven, de Beriot, Corelli, Mozart, Hauser. *I, II; (6).*

65a-65b. Fourth Year.—Sauret, *Technical Studies*; Sevcik, *Op. 1*; Sevcik, *Op. 2*. *Etudes:* Gavinies, Paganini, Tartini, Vieuxtemps, *Compositions, selected sonatas and concertos*. *I, II; (6).*

¹Students who major in voice and who are taking Music 55 are required to take Music 94.

²Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.

Each year, before registration, students are requested to have their instruments inspected by a reliable repairer.

66a-66b. Violin: One Year.—The first year's work in violin taken as a minor by senior collegiate students majoring in piano or voice. *I, II*; (2).

67a-67b. Violin.—For students from other departments of the university. *I, II*; (no credit).

Violoncello¹

F

Assistant Professor SCHWARTZ

71a-71b, 71c-71d, 71e-71f. Preparatory Course: Three Years.—At the conclusion of the course the student will be examined upon the following: DeSwert, *Cello Method*; Klengel, *Technical Studies*; Litloff, *Volkslieder Album*, two parts; Marx Markus, *Op. 40*; characteristic pieces. *I, II*; (no collegiate credit).

72a-72b. First Year.—Dotzauer, *Selected Studies*; Furino, *Polonaise*; Golterman, *Nocturnes*; Kengel, *Concertino. Op. 7. I, II*; (6).

73a-73b. Second Year.—Lee Studies: *Op. 31, No. 1*; Romberg, *Op. 42, 46, 65*; Golterman, *Concerto in G. I, II*; (6).

74a-74b. Third Year.—Lee Studies: *Op. 31, No. 2*; Golterman, *Concerto in D*; Klengel, *Concertstück in D. I, II*; (7).

75a-75b. Fourth Year.—*I, II*; (6).

76a-76b. One Year.—As a minor. *I, II*; (2).

77a-77b. For students from other departments of the university. *I, II*; (no credit).

Organ¹

Director ERR

Students desiring to take organ will be obliged to pass without conditions the entrance examination in piano. Under no circumstances will they be accepted if their piano work falls below the standard represented by this examination.

81-82. First Year.—Rogers, *Graded Materials for Pipe Organ*; Rinck, *Organ School*, Books I, II; Stainer, *The Organ* (edited by Rogers); Bach, *Eight Little Preludes and Fugues*; selected compositions. *I, II*; (6).

83a-83b. One Year.—The first year's work in organ taken as a minor by senior collegiate students majoring in piano, voice or violin. *I, II*; (2).

84-85. Second Year.—Buck, *Studies in Pedal Phrasing*; Rinck, *Organ School*, Book III; Reimann, *Op. 8, Part II*; Mendelssohn, *Sonata II; Prelude and Fugue II in G*; Van Eyken, *Sonata II*; Bach, *Preludes and Fugues in C minor and E minor*; Miscellaneous pieces. *I, II*; (6).

86-87. Third Year.—Reimann, *Op. 8, Part III*; Nielsen, *Technical Studies in Pedal Playing*; G. Ad. Thomas, *Op. 2, Book I*; Bach, *Fugue G minor; Prelude and Fugue C*; Guilmant, *Sonata III*; Rheinberger, *Sonata IV*; miscellaneous pieces. *I, II*; (6).

88-89. Fourth Year.—G. Ad. Thomas, *Op. 2, Book II*; Bach's larger works; Sonatas by Guilmant, Rheinberger, Merkel; Symphonies by Widor; Bartlett, *Suite Op. 205*; recital pieces by composers of all schools. *I, II*; (6).

¹Since it is undesirable and impossible to establish a set course for all students, the course outline given above must be taken only as indicating the general scope of the work required of each student.

Public School Music

Assistant Professor CONSTANCE BARLOW-SMITH

21a-21b. Ear Training, First Year.—Two hours a week; required of all music students. *I, II*; (no credit).

22a-22b. Ear Training, Second Year.—Two hours a week; required of students in the Course in Music in the sophomore year, and of students in the Course in Public School Music. *I, II*; (1).

23a-23b. Sight Singing, First Year.—Two hours a week; required of students in the Course in Music in the sophomore year, and of students in the Course in Public School Music. *I, II*; (no credit).

24a-24b. Sight Singing, Second Year.—Two hours a week; required of students in the Course in Music in the junior year, and of students in the Course in Public School Music. *I, II*; (1).

25a-25b. Methods of Teaching.—Elements of theory, eye and ear training, the limitations of the child-voice, selection of material, pedagogical presentations, appreciation work for the high school. (Offered primarily for students who desire to teach music successfully in the public schools.) *I, II*; (4).

Band, Orchestra, and Ensemble Work

91a-91b. University Orchestra.—Two-hour rehearsal once a week. *I, II*; (no credit). Director ERB, and Mr. MORPHY

92a-92b. University Choral Society.—One hour rehearsal once a week. *I, II*; (½). Director ERB

93a-93b. Band Instruments.—Wind instruments in band, orchestra, or solo work. *I, II*; (no credit). Mr. HARDING

94a-94b. Ensemble Class.—Trios, quartets, and quintets by classical and modern composers. (Open to all students who are sufficiently advanced to undertake the course profitably.) *I, II*; (no credit).

95a-95b. Recital.—Required of all students majoring in a practical subject. *I, (2); II, (3)*.

96a-96b. Band Instrumentation.—Compass, pitch, tone quality, details of mechanism, and practical employment of the instruments used in the modern military band. *II*; (no credit).

97a-97b. Band Arranging.—Methods of scoring for the modern military band; the making of commercial arrangements for average bands; scoring for the complete concert band; re-arranging foreign editions for American bands; making band arrangements from piano scores; transcribing orchestral works for military band; analysis and performance of full score extracts; demonstrations of instrumental grouping. *II*; (no credit).

SUMMER SESSION COURSES

Methods of Teaching

S 1. Primary and Intermediate Grades.—Rote songs and various important technical problems necessary to successful work in the eight grades; proper care of children's voices; correct breathing and interpretation.

Assistant Professor SMITH

S 2. High School Appreciation Course.—Classes and equipment; voice culture as applied to the adolescent voice; fundamental principles of harmony; musical history. (1½.) Assistant Professor SMITH

S 3. General Appreciation Course.—For the non-musician; illustration on the virola. (*No university credit.*) Assistant Professor SMITH

S 4. Theory and Ear-Training.—Fundamental principles of music; oral and written; dictation; and vocal harmony. (*No university credit.*) Miss BRAINARD

Sight-Singing

S 5. Elementary Course.—Music-notation; syllables; scale structure; ear and eye-training and application of knowledge to music reading. (*No university credit.*) Miss BRAINARD

S 6. Advanced Course.—Drill in one, two, three and four-part reading, exercises for breath control, enunciation and phrasing. (*No university credit.*) Miss BRAINARD

Campus sings every Wednesday evening at 6:45, Auditorium steps.

Assistant Professor SMITH

PALEONTOLOGY

(See GEOLOGY 1a, 16, 18, 19, 20, 21.)

PHILOLOGY

(See CLASSICS, ENGLISH LANGUAGE AND LITERATURE, GERMANIC LANGUAGES AND LITERATURE, and ROMANCE LANGUAGES AND LITERATURE.)

PHILOSOPHY

(See also PSYCHOLOGY and EDUCATION.)

ARTHUR HILL DANIELS, Ph.D., *Professor*

BOYD HENRY BODE, Ph.D., *Professor*

QUEEN LOIS SHEPHERD, Ph.D., *Instructor*

CARL HERMAN HAESSLER, A.B., *Assistant*

Students who make philosophy a major should take at least six hours of psychology. The six hours in psychology may be counted towards a major of 20 hours in philosophy. This major must include philosophy 1, 2, 3, 4, and one other advanced course.

With the exception of 1 and 10, no course in philosophy may be taken before the completion of two years of university work.

Honors

Candidates for honors in philosophy must offer:

1. In the major subject, 24 hours, 6 of which must be in psychology.
2. Minors in either: psychology (at least 6 hours in addition to the amount of psychology required for the major) and any one other subject listed below; or any two subjects from the same group—

- (a) Economics; history; political science; education; sociology.
- (b) English; French; German; Greek; Latin.
- (c) Botany; chemistry; mathematics; physics; zoology.

No course in any subject of the above groups may be counted for the minor requirement if it is excluded from the major requirement of its respective department.

Courses for Undergraduates

1. Logic.—The principles of reasoning; detection of fallacies; evidence. *I; (3).* Professor BODE, Dr. SHEPHERD, Mr. HAESSLER

Prerequisite: One year of university work.

2. Introduction to Philosophy.—Philosophic problems in their relation to the doctrine of evolution and in their bearing on conduct and religion. *II; (3).*

Professor BODE, Dr. SHEPHERD, Mr. HAESSLER

9. Political and Social Ethics.—Moral principles applied to political and social relations. *I; (2).* Professor DANIELS

[10. The Philosophic Thought of the Nineteenth Century as Reflected in English Literature.—Wordsworth; Carlyle; Emerson; Tennyson; Browning; Arnold. *I; (2).* Not given, 1914-15.]

Courses for Advanced Undergraduates and Graduates

3. Ancient and Medieval Philosophy.—The development of philosophic thought; the Greek philosophers; the medieval period. *I; (3).*

Professor DANIELS

Prerequisite: Three hours in philosophy.

4. History of Modern Philosophy.—Problems and conceptions in philosophy from Descartes to the present time. Selections from the masterpieces of this period. *II; (3).*

Professor DANIELS

Prerequisite: Three hours in philosophy.

7. Ethics.—The beginnings and growth of morality; leading conceptions of ethical theory; typical social and economic problems of the present. *II; (3).*

Professor DANIELS

Prerequisite: Three hours in philosophy.

[8. Esthetics.—The appreciation of art and nature; place of such appreciation in life; primitive arts and appreciation; modifications of the esthetic (such as the sublime and the ugly); the fine arts. *I; (3).* Not given in 1914-15.]

Prerequisite: An elementary course in philosophy or psychology.]

11. Philosophy of Religion.—The philosophical interpretation of religious consciousness; various religious concepts; God; revelation; inspiration; dogma; faith; prayer; immortality; evil; morality and religion. *II; (2).*

Professor DANIELS

Prerequisite: Senior or graduate standing; six hours in psychology, philosophy, or both.

15. The British Philosophers of the Eighteenth Century.—Locke, Berkeley, and Hume. *I; (3).* Professor BODE

Prerequisite: Philosophy 2 or 3 or 4.

16. American Philosophy.—*II; (3).*

Professor BODE

Prerequisite: Philosophy 15.

17. Advanced Logic.—*I; (3).*

Dr. SHEPHERD

Prerequisite: Philosophy 1.

18. Logical Theory in Its Bearing on Philosophical Problems.—II; (3).

Dr. SHEPHERD

Prerequisite: Philosophy 17.

19. The Development of Religious Thought in the Eighteenth and Nineteenth Centuries.—I; (3).

Dr. SHEPHERD

Prerequisite: Philosophy 2 or 3 or 4.

Courses for Graduates

A student entering upon graduate work in philosophy must have had a thorough general course in the history of philosophy, a course in logic, and a general course in psychology.

102. Seminar, Contemporary Philosophy.—Present day idealism, realism, and pragmatism. *Once a week; I, II; (1 unit).* Professor BONE

[108. Seminar, Contemporary Philosophy.—The philosophy of Bergson. *Twice a week; I, II; (1 unit).* Not given in 1914-15.] Professor BODE

103. Seminar, Ethical Theory.—*Twice a week; I, II; (1 unit).*

Professor DANIELS

107a-107b-107c. History of Philosophy.—a: The philosophy of Plato and Aristotle. *Twice a week; (1 unit).* b: The philosophy of Descartes, Spinoza, and Leibnitz. *Twice a week; (1 unit).* c: The philosophy of Kant and Schopenhauer. *Twice a week; (1 unit).* I, II. (The subjects in 1914-15 will be determined by the needs of the students registered.)

Professor DANIELS

PHOTOGRAPHY

ARTHUR GRENVILLE ELDREDGE, *Instructor*

1. The Principles and Practise of Photography.—Designed for advanced students who need to use photography in connection with their special subjects. Lenses; cameras; plates and films; exposure; development; printing; copying; positives; landscape, architectural, and scientific photography; speed work; color photography. Lectures and demonstrations; each student is required to produce a stated amount of work covering the processes treated. *II; (one hour a week, no credit).*

Mr. ELDREDGE

Prerequisite: Junior standing and the consent of the instructor.

PHYSICAL TRAINING

For Men

GEORGE A HUFF, *Director*HARRY LOVERING GILL, *Instructor, Track*ROY NEWTON FARGO, B.S., *Instructor and Director of the Men's Gymnasium*EDWARD JOHN MANLEY, *Instructor, Swimming*RALPH JONES, *Assistant*SIDNEY CASNER, *Assistant*

SUMMER SESSION ONLY

ROBERT CARL ZUPPKE, *Foot Ball Coach*

1-2. Gymnasium Practise.—Two hours' gymnasium drill each week. (Required of freshmen.) *I, II; (½).*

Mr. FARGO

1a. **Personal Hygiene.**—Six lectures. Required in conjunction with Physical Training 1. I; ($\frac{1}{2}$). Dean CLARK

SUMMER SESSION COURSES

Athletic Coaching and Playgrounds

Director HUFF, Mr. GILL, Mr. JONES, Mr. ZUPPKE, and Mr. CASNER

S 10. Baseball.—Batting; base running; proper methods of fielding each position; team work and coaching methods; study of the rules; physical condition; methods of indoor practise. Lectures and practical work. (2).

Director HUFF

S 11. Track and Field Athletics.—Starting, sprinting, distance running, hurdling, high and broad jumping, pole vaulting, shot putting, hammer throw, and discus; methods of preparing contestants for different athletic events; adaptations to individual peculiarities; rules of competition; study of physical condition, including endurance, speed, fatigue, training for condition; work is assigned for the promotion, management, and officiating of games and meets. (2)

Mr. GILL

S 12. Basketball.—Instruction in basketball to fit men to coach. Passing, goal throwing, dribbling, team play, how to condition a team, and the different styles of play used by the leading coaches. Lectures and practical work. (2).

Mr. JONES

S 13. Football.—

Theoretical:

- a. Rules from the standpoint of coach, players, and officials.
- b. Several styles of offense and defense with consideration of their special strengths and weaknesses.
- c. Generalship and strategy.

Practical:

- a. Training, conditioning, and players' equipment.
- b. Punting, drop kicking, place kicking, kick off, and forward passing.
- c. Tackling dummy and charging sled.
- d. Special drills for linemen, ends, and backs.
- e. Following the ball, interference, and team work.
- f. Fundamental plays, freak plays, and signal systems.

Lectures and practical work. (2).

Mr. ZUPPKE

S 14. Play and Play Grounds.—Philosophy of play; theories of Schiller, Spencer, and Froebel; educative value of play; the playground movement, its aims and purposes; child study; games and other activities of the playground; exercises adapted to the age of child, time of day and season, corrective gymnastics; first aid to the injured, with special attention to playground injuries; construction and equipment of playgrounds; types of apparatus; administration and management; use as a social center; personal qualifications of the director. Mero's *American Playground*, Deland's *Playground Technique and Playcraft*, Bancroft's *Games*. Inspection trips. Lectures and practical work. (2).

Mr. CASNER

PHYSICAL TRAINING

For Women

GERTRUDE EVELYN MOULTON, A.B., *Director*

VERNA BROOKS, A.B., *Instructor*

EDITH GRIFFITH OSMOND, A.B., B.S., *Instructor*

ANNA SUE HUGHITT, *Assistant*

*DOROTHY RUTH SHOEMAKER, A.B., *Assistant*

ROSA-LEE GAUT, Mus.B., *Assistant*

7a-7b. *Practise*.—Class work; light gymnastics, gymnastic dancing, and games; personal hygiene; corrective work. Required of freshmen. *I, II; (1).* Miss MOULTON, Miss BROOKS, Miss HUGHITT, Miss SHOEMAKER, Miss OSMOND

8a-8b. *Practise*.—(Continuation of 7a-7b. Second year, elective.) *I, II; (1).* Miss BROOKS, Miss HUGHITT, Miss OSMOND

9. *Hygiene*.—Required of freshmen. *I; (1).* Acting Dean KYLE

10a-10b. *Teachers' Course*.—Third year. Theory and practise teaching in the gymnasium and in public playgrounds. *I, II.* Miss OSMOND

Prerequisite: One year of gymnasium work, psychology, or education; registration in P. T. 7 or 8.

11a-11b. *Teachers' Course*.—Fourth year. Massage, theory and practise; emergencies (including bandaging); anthropometry, practise work in measurements for physical examinations. *I, II.* Miss HUGHITT

Prerequisite: P. T. 10.

SUMMER SESSION COURSES

S 1. *Methods of Improving Posture and Health; Theory and Practise*.—Corrective work, Swedish, clubs and other exercises. Hygienic work, games, dancing, and other exercises. Lectures, practise, and reading. Bancroft's *The Posture of School Children*.

S 2. *Swimming*.—Games, diving, "stunts."

PHYSICS

ALBERT PRUDEN CARMAN, D.Sc., *Professor*

CHARLES TOBIAS KNIPP, Ph.D., *Assistant Professor*

FLOYD ROWE WATSON, Ph.D., *Assistant Professor*

WILLIAM FREDERICK SCHULZ, E.E., Ph.D., *Assistant Professor*

JAKOB KUNZ, Ph.D., *Assistant Professor, Mathematical Physics*

ELMER HOWARD WILLIAMS, Ph.D., *Associate*

LLOYD THEODORE JONES, A.M., *Instructor*

WILLIAM HENRY HYSLOP, A.M., *Assistant*

OSCAR ALAN RANDOLPH, M.S., *Assistant*

EARLE HORACE WARNER, A.M., *Assistant*

SEBASTIAN KARRER, A.M., *Assistant*

JONAS BERNARD NATHANSON, A.M., *Assistant*

PAUL LEVERN BAYLEY, A.M., *Assistant*

CHARLES FRANCIS HILL, A.B., *Assistant*

SUMMER SESSION ONLY

ORRIN HAROLD SMITH, A.M., *Assistant*

*Resigned February 1, 1915.

Introductory Courses for Undergraduates

1a-1b. General Physics.—Lectures with class-room demonstration; recitations; written exercises. (For sophomores in engineering, mathematics, physics, and chemistry.) *I*; (3); *II*; (2).

Professor CARMAN, and others

Prerequisite: Registration in Physics 3a-3b. Freshman mathematics.

3a-3b. Physical Measurements.—Laboratory experiments; quizzes in connection with Physics 1a-1b. *I*, (2); *II*, (2).

Assistant Professor SCHULZ, and others

Prerequisite: Registration in Physics 1a-1b.

7a-7b. General Physics.—Lectures, with class-room demonstrations; recitations. (For students in arts and science.) *I*, *II*; (2½).

Assistant Professor WATSON, Dr. WILLIAMS, Mr. KARRER

Prerequisite: Completion of or registration in trigonometry. (Mathematics 4); registration in Physics 8a-8b.

8a-8b. Introductory Laboratory Physics.—Physical measurements. *I*, *II*; (2½).

Dr. WILLIAMS, Mr. KARRER

Prerequisite: Registration in Physics 7a-7b.

9a-9b. General Physics.—Lectures, with class-room demonstrations; recitations. (For students in architecture.) *I*, *II*; (2).

Assistant Professor WATSON, Dr. WILLIAMS, Mr. KARRER

Prerequisite: Trigonometry (Mathematics 4); registration in Physics 10a-10b.

10a-10b. Introductory Laboratory Physics.—Physical measurements. *I*, *II*; (2).

Dr. WILLIAMS, Mr. KARRER

Prerequisite: Registration in Physics 9a-9b.

15. Electricity and Magnetism.—Recitations; laboratory lectures, Brooks and Poyser's *Electricity and Magnetism*; one laboratory exercise weekly. *I*; (3).

Assistant Professor KNIPP

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

[14. Mechanics and Advanced General Physics.—Theoretical physics involving the calculus. Dynamics, with a brief introduction to thermodynamics. *I*; (3). Not given in 1914-15.

Prerequisite: A course in general physics, such as Physics 7a-7b and 8a-8b, or 1a-1b and 3a-3b, and a course in calculus.]

16. Heat.—Fundamental heat phenomena, the mechanical theory of heat and elementary thermodynamics. Laboratory experiments in thermometry, calorimetry, vapor pressure, expansion of bodies, transmission of heat, mechanical equivalent, etc. *I*; (3).

Assistant Professor WATSON

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

17. Light.—Reflection, refraction, interference, diffraction and polarization; laboratory experiments on these phenomena, and the theory and use of telescopes, microscopes, refractometers, prism and grating spectroscopes and interferometers. Edser's *Light for Students*. *I*; (2).

Assistant Professor SCHULZ

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

18. Teachers' Course.—Discussion of text-books, reference books, laboratory manuals, apparatus ordering, and methods of conducting work in physics. Manipulative work with glass and apparatus. Discussion of selected topics in advanced general physics. *II*; (2).

Assistant Professor WATSON

Prerequisite: A course in general physics, or experience in teaching.

Advanced Courses for Graduates and Undergraduates

4a-4b. Electrical and Magnetic Measurements.—Exact electrical and magnetic measurements with accompanying theory. First semester: Refined and special methods of measuring very low and very high resistances; aperiodic and ballistic galvanometers; the measurement of electric currents and quantity; the comparison of capacities. Second semester: Absolute determination of capacity; the determination of the damping factor of a ballistic galvanometer; circuits containing resistance and self-induction; classical methods for the measurement of self and mutual induction; the magnetic properties of iron, curve plotting and hysteresis losses; types of potentiometers. For the first semester there is a special section for students of chemistry. A course of experiments has been arranged including the measurement of electrolytic resistances, the use of the Dolezalek electrometer, thermo-couples, and platinum resistance thermometers for measuring temperatures; the determination of the dielectric constants of solids and liquids; and special uses of the potentiometer. *I, II*; (2).

Assistant Professor KNIPP, Mr. RANDOLPH, Mr. BAYLEY

Prerequisite: Physics 1a-1b, 3a-3b, or 7a-7b, 8a-8b and Mathematics 7, 9.

20. Light.—Special phenomena; modern theories; readings in texts of Drude, Wood, and Preston. Lectures; recitations. *I* or *II*; (2).

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b; Mathematics 7, 9, or 8.

22. Light-Photometry.—Lectures, recitations and laboratory experiments on the scientific principles and methods of photometry; the comparison of various light sources with standards; the determination of reflective power and transmission coefficients; spectrophotometry, etc. *II*; *(2 to 5).

Assistant Professor SCHULZ

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b.

23. Sound.—Phenomena of sound. The origin, propagation, velocity, and interference of sound, the vibration of strings, rods, and gas columns and the physical theory of music and speech. *II*; (3).

Assistant Professor WATSON

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b. Calculus advised.

25. Heat.—Advanced laboratory work in heat; theory and methods of measurement of temperatures by thermo-couples, resistance thermometers and optical pyrometers. *II*; (2).

Assistant Professor WATSON

Prerequisite: Physics 1a-1b, 3a-3b; or 7a-7b, 8a-8b. Physics 16 advised.

29. Electrical Currents and Oscillations.—Lectures, recitations, and laboratory measurements for advanced students in physics. The generation of currents, continuous and alternating, of both low and high frequencies. The physical problems of the currents and the generators are discussed. Two recitations and one laboratory exercise weekly. *I*; (3).

Prerequisite: Physics 4a-4b, Mathematics 7, 9, 16.

Professor CARMAN, Dr. WILLIAMS

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which *he* intends to take the course; e. g., not 2.5, but 2, or 3, or 4, or 5.

30. Introduction to Theoretical Electricity.—Electrical phenomena discussed with calculus methods. Lectures; recitations; occasional demonstrations. Foster and Porter's *Electricity and Magnetism*; II; (3).

Assistant Professor KNIPP

31a-31b. Special Problems in Advanced Physical Measurements.—I, II; *(2-4).

Professor CARMAN and others

32. Electricity and Magnetism.—Electrical measurements; special methods of measuring self and mutual inductance, capacity, etc.; measurement of low resistances; standardization and calibration work. II; (2).

Dr. WILLIAMS

Courses for Graduates

The prerequisite for graduate work in physics is a college course in general physics with a year's laboratory course in introductory physical measurements. The student who is to do major work in physics should also have had additional courses in physics or teaching experience, unless the training in his minor subjects, mathematics or chemistry, has been strong and complete. He should also have a knowledge of French and German sufficient to use references in these languages. The courses named below are those open for candidates for the Master's or Doctor's Degree. A large part of the last year's work of the candidate for the Doctor's degree is investigational, along either the experimental or the theoretical side of physics. In addition to these major graduate courses, the courses in elementary dynamics, heat, light, electrical measurements, and introductory electrical theory, are arranged with certain additions for graduate credit. The "intermediate" courses on heat, light, and electricity and magnetism may be offered by students making a minor in physics.

121. Recent Advances in Physics and the Electron Theory.—A series of lectures of a non-mathematical character, describing and discussing some of the more recent discoveries in physics, and showing by a considerable number of experiments some of the leading phenomena. The presentations and discussions will be of interest to the general student who wishes to obtain an insight into the present work and problems of physics. The main topics to be presented are: the molecular and atomic structure of matter; the universal occurrence of electrons; determination of the elementary charge of the electron by means of the fog method, by Brownian movements, by radioactivity; the cathode rays, canal rays, and Roentgen rays; ionization of gases through Roentgen rays; α , β , and γ rays; a short review of radioactivity; conduction of heat and electricity through metals, Zeeman phenomenon; the origin of light; emission and absorption spectra; chemical actions of the different rays; photoelectricity; and the structure of the atom. *Three hours a week.. II; ($\frac{1}{2}$ unit).*

Assistant Professor KNIPP, Assistant Professor KUNZ

[123. Sound.—Lectures and recitations. Rayleigh's *Sound*, Auerbach's *Akustik* and Barton's *Sound*. *Twice a week; I, II; (1 unit)*. Not given in 1914-15.]

124. Conduction of Electricity Through Gases.—Electrical conductivity of gases, ions and ionisation, the effect of a magnetic field, the motion of ions, spark discharge, cathode rays. Roentgen rays, canal or positive rays, and related phenomena of radioactivity. *Three times a week; I, II; (1 to 2 units)*.

Assistant Professor KNIPP

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

126. Physics Colloquium.—Weekly meetings of the instructors and advanced students of the department for the presentation and discussion of papers on current problems in physics and investigations in progress in the laboratory; experimental demonstrations. All graduate students are expected to attend. *Once a week; I, II ($\frac{1}{4}$ to $\frac{1}{2}$ unit).*

127. Electron Theory.—*Theoretical part.* (A knowledge of differential equations and of light, electricity and magnetism is presupposed.) Topics to be considered: Maxwell's equations applied to electrons in motion, theory of relativity and electromagnetic emission theory of light. Optical properties of metals, conduction of heat and electricity through metals; Hall effect and related phenomena; the origin and nature of Roentgen rays; reflection and interference of Roentgen rays; theory of the dielectric constant and of dispersion of light; Zeeman phenomenon; the structure of the atom; and the theory of magnetism. *Twice a week; I, II; ($\frac{1}{2}$ to 1 unit).* Assistant Professor KUNZ

131. Investigation of Special Problems.—Advanced laboratory or design and calculation. A problem worked out with the advice and direction of the instructor. *Two to four times a week; I, II; ($\frac{1}{2}$ to 2 units).*

Professor CARMAN and others

[132. Mathematical Physics.—Special phases in theoretical physics:

(a) **Dynamics.**—*First part:* dynamics of a material system, determination of the center of gravity, moment of inertia and potential, potential theory, with applications in celestial mechanics. *Second part:* the principle of least action. Lagrange's equations, the theory of the top and its applications. The fundamental equations of elasticity, hydrodynamics, of the electro magnetic field and the second principle of thermodynamics for reversible processes deduced from the principle of least action. *Three times a week; I, II; (1 to $1\frac{1}{2}$ units).*

(b) **Electrodynamics.**—Lectures; collateral reading. Problems from Jean's *Mathematical Theory of Electricity and Magnetism*; the potential theory; spherical harmonics, conjugate functions, and some theorems of the vector analysis; capacities, coefficients of self and mutual induction; theory of absolute electrical measurements and the condenser discharge with its application in wireless telegraphy; Maxwell's theory with some applications in optics, such as the optical properties of metals; modern modifications of Maxwell's theory: the theory of relativity and the electromagnetic emission theory of light. (Continued in the following year in course 132d.)

(c) **Thermodynamics and Kinetic Theory of Matter.**—The two fundamental principles developed and applied to various physical and chemical phenomena, such as elasticity, surface tension, vapor pressure, osmotic pressure, electromotive forces of galvanic cells, etc.; the theory of chemical equilibrium; the Nernst theorem with its application; the direct method of Carnot's cycle together with the method of the thermodynamic potentials and the derived functions; the kinetic theory of gases; the elementary theorems briefly repeated; the phenomena of transfer of mass, momentum and energy; Maxwell's theory of the distribution of velocities in a gas; Boltzman's H theory and the connection between entropy and probability and statistical mechanics; the theory of radiation, Planck's theory of quanta, and the recent applications in specific heat and photoelectricity. Current literature. *I, II; (1 to 2 units).*

(d) **Theory of Electrical Oscillations and Cylindrical Harmonics.**—The conduction of heat and electricity through cylinders and cables leads to

the introduction of cylindrical harmonics of real arguments. Their mathematical properties will be studied. Electrical oscillations along parallel wires, the vibrations from a Wertz oscillator and from antenna, the resonance phenomena between sending and receiving stations, the propagation of electrical waves over the surface of the earth and their absorption will be studied in the first part of the course. Cylindrical and spherical harmonics will then be used for the solution of special problems, such as the resistance and self induction of wires. Applications of cylindrical harmonics will finally be made for phenomena in optics and radiation of light and heat. *Four times a week; I, II; (1 to 2 units).* Not given in 1914-15.]

133. Seminar.—*Three or five times a week; I, II; (1 to 3 units).*

Professor CARMAN and others

SUMMER SESSION COURSES

S 2aI. General Physics, Part I.—Mechanics; the fundamental laws of motion, forces and their effects, and equilibrium. Kimball's *College Physics*. (1½.)

Assistant Professor WATSON, Mr. WARNER

Prerequisites: Plane geometry and high-school algebra; registration in Physics S 2b1. Plane trigonometry desired.

S 2bI. Introductory Laboratory Physics, Part I.—A laboratory course in physical measurements on mechanics, properties of matter, etc., to accompany S 2a1. Schulz's *Laboratory Manual*. (1½.)

Mr. WARNER, Mr. NATHANSON

Prerequisite: Registration in Physics S 2aI.

[S 2aII. General Physics, Part II.—Electricity and magnetism. Kimball's *College Physics*. (1½.) Given in 1913; not given in 1914.

Prerequisite: See S 2aI.]

[S 2bII. Introductory Laboratory Physics, Part II.—A laboratory course in electricity and magnetism to accompany S 2aII. (1½.) Not given in 1914.

Prerequisite: Registration in S 2aII.]

S 2aIII. General Physics, Part III.—Lectures; experimental demonstrations; recitations. Heat, light and sound. Text: Kimball's *College Physics*. (1½.)

Assistant Professor WATSON, Mr. SMITH

Prerequisite: Same as S 2aI.

S 2bIII.—Introductory Laboratory Physics, Part III.—Laboratory; heat, light and sound. Schulz's *Laboratory Manual*. (1½.)

Mr. SMITH, Mr. NATHANSON

Prerequisite: Registration in Physics S 2aIII.

S 4. Electrical and Magnetic Measurements.—Laboratory; recitations; report. (2.)

Dr. WILLIAMS

Prerequisite: A course in general physics and calculus.

S 15. Electricity and Magnetism.—Lectures, recitations and laboratory work. Brooks & Poyser, *Magnetism and Electricity*. (1½.) Dr. WILLIAMS

Prerequisite: A course in general physics.

S 16. Heat.—Thermometry, calorimetry, expansion, and vapor pressure. Lectures; demonstrations; recitations; laboratory. Edser's *Heat for Advanced Students*. (1½.)

Mr. WARNER

Prerequisite: A course in general physics. See instructor in special cases.

S 18. Teachers' Course.—Methods of organizing laboratory work, quizzes and class demonstrations, criticisms of high-school text-books, principles of selecting and ordering apparatus. Laboratory manipulation; glass blowing, minor repairs of apparatus, and preparation of direction sheets. (1).

Assistant Professor WATSON, Mr. SMITH

Prerequisite: A course in general physics, or teaching experience in physics.

S 31. Special Problems in Advanced Physical Measurements.—Accurate determination of the value of "g" with the pendulum, moments of inertia, calibration of a set of weights, accurate determination of pitch of vibrating bodies, inductance, capacity, and resistance. Watson's *Practical Physics*. (1 or 2.)

Assistant Professor WATSON, Dr. WILLIAMS

Prerequisite: A course in general physics, calculus.

S 131. Investigation of Special Problems.—Intended for students working for advanced degrees.

Assistant Professor WATSON, Dr. WILLIAMS

Prerequisite: Registration in Graduate School. See instructor.

S 133. Seminar and Thesis.—Assistant Professor WATSON, Dr. WILLIAMS

Prerequisite: Registration in Graduate School.

PHYSIOLOGY

WILLIAM EDWARD BURGE, Ph.D., *Assistant Professor*

JOSEPH HOWARD BEARD, A.M., M.D., *Instructor*

ALMA JESSIE NEILL, A.B., *Assistant*

Of the courses outlined below, 1, 2, and 6 are designed primarily for medical students, or for those intending to specialize in physiology; courses 4 and 6 may be taken by students desiring courses in general physiology; courses 3 and 5 are open to seniors in the medical course and 103 to graduate students.

The laboratory is equipped for the pursuance of investigation in physiology.

1. Histology—Fundamental mammalian tissues; microscopic anatomy of the organs. Lectures and laboratory. *I*; (5).

Assistant Professor BURGE, Dr. BEARD

Prerequisite: Two years of university work including five hours in botany or zoology.

2. Experimental Physiology.—Physiology of nerve and muscle; circulation; respiration; secretion; digestion, metabolism. Lectures and laboratory. *II*; (7).

Assistant Professor BURGE, Dr. BEARD

Prerequisite: Physiology 1; Chemistry 13; Physics 7a-7b.

3. Undergraduate Thesis.—(For undergraduates who wish a thesis course.)

Assistant Professor BURGE

4. General Physiology, Chemical and Experimental.—Lectures, demonstrations, recitations, and laboratory work. *I* or *II*; (5).

Assistant Professor BURGE, Dr. BEARD

Prerequisite: One semester of university work including five hours in botany or zoology and five hours in chemistry.

5a-5b. Special Physiology.—(For advanced students who wish to take up a special line of work not specified in one of the other courses.) Laboratory; conferences. *I, II; *(3 hours or more).* Assistant Professor BURGE

Prerequisite: The consent of the head of the department.

6. Physiology of the Nervous System and the Senses.—Lectures and laboratory. *II; (3).* Assistant Professor BURGE, Dr. BEARD

Prerequisite: Physiology 4 or registration in Physiology 2.

Course for Graduates

103. Research.—*Once a week; I, II; (1 to 2 units).*

Assistant Professor BURGE

PHYSIOGRAPHY

SUMNER WEBSTER CUSHING, S.B., A.M., *State Normal School, Salem, Massachusetts*

GEORGE WILLIAM HEITKAMP, A.B., *Assistant in Physiography*

S 1. The Surface Features of the Earth.—Origin, development and classification; streams, glaciers, winds and waves; the characteristic land forms produced by each; brief life responses to physiographic features. Primarily for teachers of physiography in high schools. (4.)

Professor CUSHING, Mr. HEITKAMP

S 2. Regional Geography of the United States.—Physiography, climate, and life responses in United States. Open to students who have a general knowledge of elementary physiography. Lectures, maps and readings. (2½.)

Professor CUSHING, Mr. HEITKAMP

S 3. Meteorology.—Circulation of the atmosphere; wind belts; direction of winds, amount of rainfall, and peculiar climatic influences with causes in each case. Conditions which produce abnormalities in the general circulation, rainfall or climate, as monsoons; near and distant mountains; size and shape of land masses; shape of coast lines; ocean currents; cyclones and anticyclones. Weather: making and interpretation of observations; forecasting; causes of normal and abnormal types. Study of specific areas having abnormal climates, such as China, England, Argentina, Alaskan coast, Eastern equatorial Africa, Gulf States of United States, Bengal, Gobi. Lectures and laboratory. (1½.)

Mr. HEITKAMP

S 4. Advanced Physiography.—An introduction to physiographic literature. Lectures, conferences, and laboratory, field trips. (1½.)

Professor CUSHING

POLITICAL SCIENCE

(See also ECONOMICS, HISTORY, and SOCIOLOGY)

JAMES WILFORD GARNER, Ph.D., *Professor*

†JOHN ARCHIBALD FAIRLIE, Ph.D., *Professor*

‡WALTER FAIRLEIGH DODD, Ph.D., *Associate Professor*

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

†On leave.

‡On leave, second semester.

JOHN MABRY MATHEWS, Ph.D., *Associate*
 RUSSELL McCULLOCH STORY, A.M., *Instructor*
 ALFRED CHESTER HANFORD, A.M., *Assistant*

SUMMER SESSION ONLY

THOMAS FRANCIS MORAN, Ph.D., *Purdue University*

Honors

1. A total of 24 hours required for honors in political science may, with the consent of the department, include courses in constitutional history (History 4 and 14), political philosophy (Philosophy 5), or law (not exceeding six hours).

2. One minor must be history, in which courses must be offered aggregating not less than 12 hours. The other minor may be economics, sociology or philosophy, aggregating not less than 9 hours.

3. A reading knowledge of one modern language is advised.

Courses for Undergraduates

Courses 1 and 3 are intended to furnish a general survey of the field of national, state, and local government in the United States, and should be taken by all students who expect to specialize in political science. Course 1A is for the benefit of students in the Colleges of Engineering and Agriculture who may desire an introductory course in American Government, and is open only to such students.

1. American Government.—Historical development, organization, powers, limitations, and practical working of the national government in the United States. *I*; (3).

Professor GARNER, Dr. MATHEWS, Mr. STORY

Prerequisite: Thirty hours of university work.

3. State and Local Government.—Powers, obligations, and rights of the states in the Federal Union; formation and admission of states; development of state constitutions; organization of state and local government; political methods. (A continuation of course 1; may be taken independently.) *II*; (3).

Professor GARNER, Dr. MATHEWS, Mr. STORY

Prerequisite: Thirty hours of university work.

1a. American Government and Politics.—National, state and local government. (Open only to students in the colleges of Engineering and Agriculture.) *II*; (2).

Mr. STORY

Prerequisite: Thirty hours of university work. No credit is allowed for this course if the student has already had or subsequently takes course 1 or 3.

16. Government of Illinois.—Constitutional development, organization and administration of state and local government in Illinois; the legislature; the executive; the judiciary; state officers and institutions; county, town and municipal government. *II*; (2).

Mr. STORY

Prerequisite: Thirty hours of university work.

Courses for Advanced Undergraduates and Graduates

(At least junior standing required)

4. Municipal Government.—The growth of cities; municipal organization in the United States; the mayor and the council; commission government;

the city manager plan; a preliminary consideration of municipal functions and the problems of city government. Lectures; assigned readings; reports. *I*; (3).

Mr. STORY

Prerequisite: One course in political science or Economics 1.

5. Constitutional Law of the United States.—The judicial interpretation of the Constitution of the United States; judicial power to declare laws unconstitutional; separation of governmental powers; relation between state and national government; fundamental rights under the constitutions (due process of law, contract); territories and dependencies; national powers with respect to taxation, commerce; jurisdiction of the United States courts. *I*; (4).

Assistant Professor DODD

Prerequisite: Political Science 1.

6. International Law.—Law of nations; its nature, source, and present status; the doctrine of intervention; the laws of war and peace; the rights and duties of neutrals; the arbitration movement. Lectures, assigned readings and reports. *I*; (3).

Professor GARNER

Prerequisite: Graduate or senior standing, or junior standing with six hours of history and five hours of political science.

7. American Diplomacy.—Genesis and present organization of the Department of State; the diplomatic service; the treaty making power; the methods and traditional principles of the foreign policy of the United States; the principal diplomatic controversies between the United States and foreign powers; the rise of the United States to the position of a world power. *II*; (3).

Dr. MATHEWS

Prerequisite: Junior standing and Political Science 1 or History 3a-3b.

9. Principles of Jurisprudence.—The nature of law; historical development of the English legal system; English common law in the United States; sources of law and relation between statutes and judicial decisions; brief discussion of the various branches of law (crime, tort, contract, etc.) and their relation to one another. *I*; (3).

Assistant Professor DODD

Prerequisite: Political Science 1 or its equivalent and junior standing.

[10. Administrative Law in the United States.—Separation of governmental powers and delegation of legislative power; federal and state administrative organizations; powers of administrative officers; methods of enforcing governmental commands; remedies of the individual against unlawful action of public officials (civil suit, criminal action, mandamus, injunction). *II*; (3). Not given in 1914-15.

Assistant Professor DODD

Prerequisite: Course 5 and at least junior standing.]

[11. Constitutional Aspects of Social and Industrial Problems.—The police power for the protection of the public safety, health, and welfare; constitutional limitations upon legislation concerning the public health and safety, the control of public service corporations and combinations of capital, and labor legislation. *II*; (3). Not given in 1914-15.

Assistant Professor DODD

Prerequisite: Senior standing and at least 5 hours in Political Science; Political Science 5, or Economics 12 recommended.]

[12. National Administration.—Administrative powers of the President and Congress; executive departments and administrative services of the national government; judicial administration and the relation of the courts to the executive authorities. *II*; (3). Not given in 1914-15.

Professor FAIRLIE

Prerequisite: Political Science 1.]

13. State Administration in the United States.—The administrative position of the governor and the organization of the state administrative departments; state administrative disintegration and the influence of the diffusion of the executive power upon the enforcement of state law; organization and powers of state boards, commissions, and quasi-judicial tribunals; tendencies toward centralization in the administration of taxation, education, and other state functions; methods of control over state administrative officers. *I*; (3).

Dr. MATHEWS

Prerequisite: Political Science 3 or its equivalent.

14. Political Parties and Methods.—Development of political parties; party organization and political methods in the United States and Great Britain; recent legislation on primary elections and corrupt practises. *II*; (2).

Professor FAIRLIE

Prerequisite: One course in political science.

21. British Government.—Political institutions in the United Kingdom and the British possessions: the Crown; the Cabinet; the House of Commons; the House of Lords; the party system; the courts of law; local government; government in the Crown Colonies and the self-governing colonies; recent developments and proposed changes. *I*; (3).

Professor FAIRLIE

Prerequisite: Open only to graduate students and to seniors who have had six hours in political science.

22. Continental European Governments.—The national political systems of France, Germany, Austria-Hungary, Italy, and Switzerland; constitutional beginnings; political organizations; methods of legislation and administration; constitutional guaranties for the protection of individual rights. *II*; (3).

Professor GARNER

Prerequisite: Open to graduate students and seniors who have had six hours in political science. History 20a-20b recommended.

28. Problems of Contemporary Politics.—Present day politics, domestic and foreign; the initiative, the referendum, and the recall; proportional representation; state socialism; the immigration problem; electoral reform; ballot reform; judicial reform; parliamentary government; the Monroe Doctrine; international arbitration, etc. Reports by individual members of the class and general discussion. *II*; (2).

Professor GARNER

Prerequisite: Senior standing and one course in political science.

34. Municipal Problems.—Municipal administration in the United States and Europe: municipal ownership and regulation of public utilities; police and sanitary administration; city planning and housing; municipal finances. Lectures, readings, and special reports. *II*; (3). Professor FAIRLIE

Prerequisite: Open to graduate students and to undergraduates who have had Political Science 4.

Courses for Graduates

[101. History of Political Theories.—Ancient, medieval and modern political thought; political theories of Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, and others; evolution of American political ideas. Given every other year, alternating with course 102. Not given 1914-1915. *Twice a week; I; (1 unit).*]

Professor GARNER

102. The Nature of the State.—The principles, methods, and relations of political science; the origin, nature, forms, and functions of the state; sovereignty and liberty; citizenship and nationality; constitutions; principles and methods of political organization. Given in 1914-15 and alternate years, alternating with course 101.) *Twice a week; I; (1 unit).*

Professor GARNER

103. Seminar in Political Science and Public Law.—Special problems; reports; discussions and criticism. The research work of candidates who are writing theses is under the direction of some instructor to whom they report. *I, II.*

Members of the department

[**105. Special Topics in Constitutional Law.**—*Twice a week; II; (1 unit).* Not given in 1914-15.]

Assistant Professor DODD

112. Special Topics in Comparative Administration.—Subject for 1914-15: County and Town Government. *Twice a week; II; (1 unit).*

Professor FAIRLIE

SUMMER SESSION COURSES

S 1. Municipal Government.—The growth of cities; municipal organization and functions in the United States; the mayor and the council; commission government; police; light and water supply; city planning; urban transportation; municipal ownership and regulation of public utilities; charities; education. Munro's *The Government of American Cities*. Lectures and assigned reading. (2½).

Mr. STORY

S 2. Government of Illinois.—Historical and constitutional development; organization and administration of state and local government; the legislature; the executive; the judiciary; state officers and institutions; county, town, and municipal government. Lectures and assigned readings. (2½).

Mr. STORY

***S 3. The English Government.**—The English Government as it now exists; theoretical and practical prerogatives of the Crown; the origin, composition and fundamental principles of the Cabinet; ministerial responsibility; the origin, composition and functions of the Houses of Parliament; the procedure, sovereignty and privileges of Parliament; and the present trend of British politics; comparisons with the government of the United States and of European countries. The organization of the British Empire and the government of the colonies. (2½).

Professor MORAN

Open to graduates and undergraduates who have had at least one college course in political science or English history.

PSYCHOLOGY

MADISON BENTLEY, Ph.D., *Professor*

CHRISTIAN ALBAN RUCKMICH, Ph.D., *Instructor*

*HOMER BLOSSER REED, Ph.D., *Instructor*

†CARL RAHN, Ph.D., *Instructor*

JOSEPH EDGAR DECAMP, Ph.D., *Assistant*

ANNA SOPHIE ROGERS, A.M., *Graduate Assistant*

*First semester.

†Second semester.

Major and Minor

The major, which consists of 20 hours selected under the advice of the department, may be made up from among any of the courses which follow, excepting 103 and 105. The minor may be made up, with the consent of this department, from one or more of the following subjects: physiology, education, zoology, neurology, philosophy, genetics, sociology, and physics. At least 8 hours must be offered in one minor subject chosen.

Honors

Candidates for honors in psychology must offer:

1. A major group of 20 semester hours. This group is to be made up from courses announced in psychology; except that 6 hours within the group may be chosen from one or more of the following subjects: Philosophy 1, 2, 4; Physics 1, 2a, 2b, 3; Zoology 1, 3, 13, 13a; Animal Husbandry 30. At least 6 of the hours in psychology must be taken in laboratory courses.

2. Two minor groups. These groups are to be selected from subjects which are related to psychology, such as physiology, education, zoology, neurology, philosophy, genetics, sociology, and physics. The constitution of each of the minor groups will be determined by consultation with the department of psychology. Each group must contain at least nine semester hours, and both groups at least twenty-four hours.

Laboratories

The departmental laboratories occupy 23 rooms, including five dark rooms. They make provision for (1) research, (2) undergraduate instruction in drill-courses, (3) demonstrations in the lecture-room, (4) the testing of mental capacity and of mental defect, and (5) the study of the animal mind. The laboratory contains standard equipment and such special pieces as apparatus for spectroscopical problems, for chronoscopic methods, and for studies in memory and association. Provision is made for optical and acoustical experiment. The departmental library contains files of foreign and American journals, and a working collection for experimental and historical studies.

1. **Introduction to Psychology.**—Facts and laws of consciousness; preliminary to all the other work of the department. Lectures; sectional meetings. *I*; (3). Professor BENTLEY and assistants

Prerequisite: One year of university work.

2. **General Psychology.**—Mental inheritance, habit, custom, and fashion; the relations of psychology to the biological and social sciences; comparative and genetic psychology, and the psychology of the abnormal; application to the arts and professions. *II*; (3). Professor BENTLEY and assistants

Prerequisite: Psychology 1.

3. **Laboratory Practise (Elementary).**—Classical experiments in the fields of sensation, feeling, attention, and action. A drill course in scientific method. *I* or *II*; (2). Dr. RUCKMICH and assistants

Prerequisite: Psychology 1.

4. **Laboratory Practise (Intermediate).**—Experiments in memory, association, learning, and thought. A part of the term may be devoted either to the metrical methods of psychophysics or to the solution of a small qualitative problem. *I* or *II*; (2). Dr. RUCKMICH and assistants

Prerequisite: Psychology 1, 3.

5. Comparative Psychology.—Mind in animal forms; the psychological implications of organic evolution; a comparison of human and animal minds; criticism of current literature. (Recommended to students who intend to elect advanced courses either in animal psychology or in the study of behavior.) Lectures and laboratory exercises. *I*; (2). Professor BENTLEY, Dr. REED

Prerequisite: Psychology 1.

6. Comparative Psychology (Advanced Laboratory).—Individual studies in animal psychology. *II*; *(2-4). Professor BENTLEY

Prerequisite: Psychology 1 and 5.

[7. The Image and Imagination.—Methods of study; types of imagery. Lectures, reading, and demonstrations. *I*; (2). Not given in 1914-15.

Prerequisite: Psychology 1 and 2.]

[8. Memory and Association.—Recollection, recognition, reproduction; forms of the associative consciousness; experimental methods. Lectures, demonstrations, and exercises. *II*; (2). Not given in 1914-15.

Prerequisite: Psychology 1 and 2.]

10. German Reading.—Translation into English of a German psychological text. *I*; (1). Professor BENTLEY

12-13. Minor Problems (Advanced Laboratory).—Methods suitable to new problems; investigations. Studies in the current literature or the presentation of essays upon historical subjects may be substituted for laboratory problems. *I, II*; *(2-5). Professor BENTLEY, Dr. RUCKMICH, Dr. REED

Prerequisite: Psychology 1, 2, 3.

[15. The Psychological Basis of Music.—An elementary course. Summary of literature on the origin of music, harmony, melody, rhythm, consonance, tonal quality; psychology of musical appreciation and performance. *II*; (2). Not given in 1914-15.]

17. The History of Psychology.—Lectures and reading. *II*; (2).

Dr. RUCKMICH

Prerequisite: Psychology 1, 2, and one other course.

19-20. Systematic Psychology.—Analysis; classification of elementary processes; sensory and imaginal processes and the simpler complexes. Lectures and essays. (For advanced students.) *I, II*; (3).

Professor BENTLEY, Dr. RUCKMICH

Courses for Graduates

103. Research.—Theses offered for advanced degrees. *I, II*.

Professor BENTLEY, Dr. RUCKMICH

105. Seminar. Current topics considered in their historical setting. *I, II*. Professor BENTLEY

PUBLIC SPEAKING

(See RHETORIC under ENGLISH LANGUAGE AND LITERATURE)

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course: e. g., not 2-5, but 2, or 3, or 4, or 5.

RAILWAY ENGINEERING

*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Director, Professor*

EDWARD CHARLES SCHMIDT, M.E., *Professor*

JOHN McBEATH SNODGRASS, B.S., *Assistant Professor, Railway Mechanical Engineering*

ALONZO MORRIS BUCK, M.E., *Assistant Professor, Railway Electrical Engineering*

ARTHUR FRANCIS COMSTOCK, C.E., *Associate, Railway Civil Engineering*

ROBERT BROWDER KELLER, B.S., *First Assistant, Engineering Experiment Station*

HAROLD HOUGHTON DUNN, B.S., *Assistant, Engineering Experiment Station*

Railway Civil Engineering—Courses 31-51.

Railway Electrical Engineering—Courses 60-68.

Railway Mechanical Engineering—Courses 1-10.

Common to all groups—Courses 25 and 30.

1. **Locomotives.**—Mechanics and problems relating to operation. Development of types. *I*; (2). Professor SCHMIDT

Prerequisite: Theoretical and Applied Mechanics 29; Mechanical Engineering 64, 15, 2.

2. **Locomotive Design.**—Calculations and designs of engine and boiler details; current standards and proportions. *I*; (3).

Assistant Professor SNODGRASS

Prerequisite: Mechanical Engineering 64, 4, 5, 15, 2; registration in Railway Engineering 1.

3. **Shops and Auxiliary Equipment.**—The design and equipment of railway shops and roundhouses and their organization; water purifying plants; pumping stations; air-brake equipment. *II*; (2).

Assistant Professor SNODGRASS

Prerequisite: Mechanical Engineering 64, 4; Chemistry 1a or 1b.

4. **Locomotive Performance.**—Influence of combustion rate, steam pressure, speed; and cut-off; compounding and superheating. *I*; (2).

Assistant Professor SNODGRASS

Prerequisite: Theoretical and Applied Mechanics 21; Mechanical Engineering 64, 4, 5, 15, 2.

6. **Locomotives.**—Mechanics; performance; design. *II*; (4).

Professor SCHMIDT

Prerequisite: Theoretical and Applied Mechanics 21, 29; registration in Mechanical Engineering 12 and 64.

7. **Advanced Design.**—Problems in locomotive and car design. *II*; (3).

Assistant Professor SNODGRASS

Prerequisite: Railway Engineering 2.

8. **Dynamometer Car Tests.**—Investigation of train resistance and locomotive tractive effort by the use of the railway test car. Analysis of the results and their application to the problems of tonnage rating. *I*; (2). Mr. KELLER

Prerequisite: Open to seniors in railway courses only

*On leave.

9-10. Seminar.—Discussion of current topics and review of railway journals; assigned topics and reports. *I, II; (1).*

Professor SCHMIDT, Assistant Professor SNODGRASS

Prerequisite: Open to seniors in railway courses only.

25. Railway Development.—History and organization of steam and electric railways; statistics; costs. *I; (3).*

Professor SCHMIDT, Assistant Professor SNODGRASS, Assistant Professor BUCK, Mr. COMSTOCK

Prerequisite: Open to juniors in railway courses only.

30. Thesis.—Independent solution of some railway problem or the investigation of some subject. The thesis may consist of an original design or of an original experimental investigation, or it may be the analysis and discussion of facts already in existence. *II; (3).*

Professor SCHMIDT, Assistant Professor SNODGRASS, Assistant Professor BUCK, Mr. COMSTOCK, Mr. KELLER

31. Railway Yards and Terminals.—Theory of design; arrangement of grades in gravity yards; problems. *II; (3).*

Mr. COMSTOCK

Prerequisite: Civil Engineering 51.

32. Railway Construction.—Advanced course in design of railway structures; study of cost analysis; preparation of estimates of cost, complete working drawings, and contracts and specifications for assigned problems in design. *II; (2).*

Mr. COMSTOCK

Prerequisite: Civil Engineering 51.

33. Economic Theory of Railway Location.—Influence of volume of traffic, alignment, and gradient upon operating expenses; locomotive and grade problems; relocation of existing lines. *I; (4).*

Mr. COMSTOCK

Prerequisite: Civil Engineering 51; Theoretical and Applied Mechanics 20, 21.

34. Railway Maintenance.—Systems; track design; standards and charts; classification of accounts; measuring efficiency; emergency organization. *II; (4).*

Mr. COMSTOCK

Prerequisite: Civil Engineering 51.

35. Railway Signaling.—Block and route signaling; systems in current use; history of development; study of railway accidents. *I; (1).*

Mr. COMSTOCK

Prerequisite: Civil Engineering 51.

50-51. Seminar.—Current topics; review of railway journals; assigned topics and reports. *I, II; (1).*

Mr. COMSTOCK

Prerequisite: Open to seniors in railway courses only.

60. Electric Railway Principles.—Mechanics of traction; train resistance; braking of electric railway trains; methods of solving fundamental electric railway problems. *II; (2).*

Assistant Professor BUCK

Prerequisite: Theoretical and Applied Mechanics 25; Electrical Engineering 25, 22.

61. Electric Traction.—Selection and operation of equipment. A condensed course for students in railway mechanical engineering or other engineering departments. *II; (3).*

Assistant Professor BUCK

Prerequisite: Theoretical and Applied Mechanics 21; Electrical Engineering 11, 62, or 25, 22.

63. **Electric Railway Laboratory.**—Tests of electrical machinery used in railway service; work with the electric and steam railway test cars to determine train resistance and power consumption. *II*; (3).

Assistant Professor BUCK

Prerequisite: Railway Engineering 64; Electrical Engineering 24.

64. **Electric Railway Practise.**—Types of equipment; energy consumption; methods of distribution. *I*; (3).

Assistant Professor BUCK

Prerequisite: Theoretical and Applied Mechanics 25; Electrical Engineering 5, 23.

65. **Electric Railway Economics.**—Location and operation; choice of systems; location of power plant and sub-stations; calculation of transmission and distribution of circuits; maintenance of way and of equipment; electrification of steam roads. *II*; (3).

Assistant Professor BUCK

Prerequisite: Railway Engineering 64.

67-68. **Seminar.**—Current topics; review of railway journals; assigned topics and reports. *I, II*; (1).

Assistant Professor BUCK

Prerequisite: Open to seniors in railway courses only.

Courses for Graduates

Entrance upon graduate work in railway engineering presupposes the full undergraduate course in that subject.

102. **Locomotive Design.**—Modern practise concerning steam pressure, compounding, superheating.

Professor GOSS

106. **Locomotive Operation.**—Train resistance and tractive effort; tonnage ratings.

Professor SCHMIDT

108. **Electric Railway Practise.**—The design, selection, operation, and maintenance of equipment; central station, sub-station, rolling stock and line equipment.

Assistant Professor BUCK

110. **Railway Location.**—The effects of location upon earning capacity; problems in original location, in the relocation and reduction of grades of existing lines.

Mr. COMSTOCK

RHETORIC

(See ENGLISH.)

ROMANCE LANGUAGES AND LITERATURE*

THOMAS EDWARD OLIVER, Ph.D., *Professor*

DAVID HOBART CARNAHAN, Ph.D., *Associate Professor*

JOHN DRISCOLL FITZ-GERALD, II., Ph.D., *Assistant Professor*

DAVID SIMON BLONDHEIM, Ph.D., *Assistant Professor*

ARTHUR ROMEYN SEYMOUR, Ph.D., *Associate*

OLIN HARRIS MOORE, Ph.D., *Instructor*

THOR GRIFFITH WESENBERG, A.M., *Assistant*

CONRAD JOSEPH EPELS, *Assistant*

CHARLES SEROPHIN CARRY, *Assistant*

LOUIS ALLEN, A.B., *Assistant*

JAMES KESSLER, A.B., *Assistant*

RAFAEL SOTO, B.S., *Assistant*

*The department is administered by the following committee: Associate Professor D. H. Carnahan, Chairman, Professor Thomas E. Oliver, Assistant Professor John D. Fitz-Gerald.

A major in French or Romance Languages consists of 20 hours chosen from the courses announced below except French 1a and 1b, 2c and 2d, and 9a and 9b, and Spanish 1a and 1b.

A minor for students taking a major in French or Romance Languages must include at least 8 hours of Latin in addition to 3 years of high school Latin. The remaining 12 hours may be chosen from not more than two of the following subjects: education; English, excluding 1a and 1b, and Rhetoric 1 and 2; German, excluding German 1, 2, and 3; history; Italian; philosophy; and Spanish, excluding 1a and 1b.

Honors: Candidates for honors in French must offer:

1. A major in French.
2. At least 12 hours in Latin, in addition to three years of high school Latin.
3. At least ten hours in one of the following subjects: German, excluding German 1, 2, and 3; Spanish, excluding Spanish 1a and 1b; Italian; English literature, excluding English 1 and 2; history; and philosophy.

A. FRENCH

Courses for Undergraduates

1a-1b. Elementary Course.—Grammar; pronunciation; reading of simple modern authors; composition; conversation. *I, II; (4).*

Professor OLIVER, Associate Professor CARNAHAN, and others

Prerequisite for 1b: One year of high school French, or French 1a, or French S1.

2a-2b. Modern Prose, Poetry, and Drama.—Rapid reading of modern authors; advanced syntax and composition. *I, II; (4).*

Professor OLIVER, Associate Professor CARNAHAN, and others

Prerequisite: French 1a, 1b.

2c-2d. Second-Year Conversation.—Classroom work. (Does not count toward a major in French.) *I, II; (1).*

Mr. EPPLES

Prerequisite: French 1a, 1b, with a grade of at least 85; registration in French 2a, 2b.

3a-3b. Intermediate Prose Composition and Conversation.—Conducted in French. Reading; themes; talks upon France and French life. *I, II; (2).*

Mr. CARRY

Prerequisite: French 2a-2b.

NOTE—This course is required of those who are given the recommendation of the department to teach French.

[4a-4b. **Advanced Composition.**—*I, II; (2).* Not given in 1914-15.]

9a-9b. Masterpieces of Romance Literatures in English Translations.—Dante, Petrarch, Boccaccio, Cellini, Machiavelli, Ariosto, Tasso, Lazarillo de Tormes, Calderon, Cervantes, Moliere, etc. (This course may not be counted toward a major in French.) *I, II; (2).*

Dr. MOORE

Prerequisite: Two years of university work.

22a-22b. Modern Novel and Drama.—From the beginning of the nineteenth century to the present time. Lectures; reports on collateral reading. *I, II; (3).*

Assistant Professor FITZ-GERALD

Prerequisite: French 2a-2b.

25. Course for Teachers.—Methods of teaching French in this country and abroad; class-room problems. *I*; (2). Associate Professor CARNAHAN
Prerequisite: Twenty-four hours' credit in French.

28a-28b. Senior Thesis.—Primarily for candidates for honors in French, but open to other seniors. *I, II*; (1).

Associate Professor CARNAHAN, and members of the staff

Courses for Advanced Undergraduates and Graduates

10a-10b. Survey of French Literature.—Special periods and authors. *I, II*; (3). Associate Professor CARNAHAN

Prerequisite: French 22a-22b, or 24a-24b.

[**23a-23b. Modern French Poetry.**—*I, II*; (3). Not given in 1914-15.]

24a-24b.—Seventeenth and Eighteenth Century Dramatists.—Corneille, Racine, Moliere, Voltaire, Marivaux, Sedaine, Beaumarchais. Lectures and interpretation of the great masterpieces. *I, II*; (2). Professor OLIVER

Prerequisite: French 2a-2b.

26a-26b. French Literary Criticism.—History of criticism in antiquity and in the Italian Renaissance; the principal French critics; the development of classicism and romanticism in the seventeenth and nineteenth centuries. *I, II*; (2). Assistant Professor BLONDHEIM

Prerequisite: Three years of French.

Courses for Graduates

Before entering upon the study of Romance languages for an advanced degree, the candidate must have had a total of at least thirty hours of college work in these languages. Eighteen of these hours must be in one of these three languages, French, Italian, or Spanish, but no candidate will be received who has not had at least twelve hours in French. In addition a candidate must have had satisfactory training in Latin, and be able to read ordinary German prose.

102. Old French Lyric and Prose Literature.—Critical interpretation of the earlier Old French dramatists, didactic, chronicle and lyric writers. The history of these types of medieval literature. For students who prefer it, the collateral work may consist of the elements of Old French historical grammar. *Twice a week; I, II; (1 unit).* Professor OLIVER

103. Seventeenth Century Prose Writers.—Lectures on French culture, society and prose literature of the seventeenth century. The great preachers and moralists. Jansenism and Port Royal. The formation of the classic ideals. Collateral readings of the greater masterpieces, with assigned problems for special investigations. *Once a week; I, II; (½ unit).*

106. Early French Drama.—Origins of the French drama; its development up to the Renaissance. *Twice a week; I, II; (1 unit).*

Associate Professor CARNAHAN

110. Old French Phonology and Morphology.—Development of Old French from Vulgar Latin. *Twice a week; I, II; (1 unit)*

Assistant Professor BLONDHEIM

125. Seminar.—Research work in preparation for theses in the field of the Romance languages. *Twice a week; I, II; (1 unit).*

Professor OLIVER, and other members of the department

B. ITALIAN

[1a-1b. Elementary Course.—*I, II*; (3). Not given in 1914-15.]

Course for Advanced Undergraduates and Graduates

2a-2b. Italian Literature.—First Semester: Rapid reading from the works of Italian writers of the nineteenth century. Second semester: Selections from Dante, Petrarch, and Boccaccio. *I, II*; (2). Dr. MOORE

Prerequisite: Italian 1a-1b.

C. SPANISH

Courses for Undergraduates

1a-1b. Elementary Course.—Grammar; pronunciation; easy reading; composition; conversation. *I, II*; (4).

Dr. SEYMOUR, Mr. WESENBERG, Mr. SOTO

2a-2b. Conversation and Composition.—Conversation; composition; reading of modern prose. The vocabulary of everyday life is emphasized. Commercial correspondence. *I, II*; (3). Dr. SEYMOUR

Prerequisite: Spanish 1a, 1b.

3a-3b. Introduction to Spanish Literature.—Rapid reading of works of representative modern authors. *I, II*; (2). Assistant Professor FITZ-GERALD

Prerequisite: Spanish 1a, 1b.

4a-4b. Advanced Conversation and Composition.—Commercial correspondence; reading of commercial Spanish. (Conducted in Spanish.) *I, II*; (2). Dr. SEYMOUR

Prerequisite: Spanish 2a, 2b.

Courses for Advanced Undergraduates and Graduates

11-12. The Spanish Drama of the Sixteenth and Seventeenth Centuries.—Earlier dramatists; plays of Lope de Vega, Calderon, Ruiz de Alarcón, and Tirso de Molina. Reports on plays read outside of class. *I, II*; (2). Dr. SEYMOUR

Prerequisite: Spanish 3a, 3b.

[15. Survey of Spanish Literature.—*II*; (2). Not given in 1914-15.]

Courses for Graduates

131. Oldest Monuments of the Spanish Language; Origins of Spanish Poetry.—Historical grammar and paleography; critical interpretation of texts. *Twice a week*; *I, II*; (1 unit). Assistant Professor FITZ-GERALD

133. Origins of the Spanish Novela and Comedia.—Spanish prose fiction drama previous to the Golden Age. *Twice a week*; *I, II*; (1 unit).

Assistant Professor FITZ-GERALD

134. The Spanish Ballad.—Types of the ballad; lectures; collateral reading; reports. *Twice a week*; *I, II*; (1 unit). Dr. SEYMOUR

SUMMER SESSION COURSES

S 1. Elementary Course.—Pronunciation, grammar, composition, reading. Giese's *Graded French Method*. (4). Mr. CARRY

S 1a. Elementary Course (continued).—(2-4).

Professor OLIVER and Mr. CARRY

Prerequisite: French 1 (Elementary French, first semester), S1, or one year of high-school French.

S 2. Modern French.—Rapid reading; composition; conversation. Com-
fort's *French Prose Composition*; Loti's *Pêcheur d'Islande*; Lesage's *Gil Blas*;
Erckman-Chatrian's *Le Juif Polonais*; Bazin's *Les Oberlé*; Hugo's *Ruy Blas*;
Rostand's *Cyrano de Bergerac*. (2).

Professor OLIVER

Prerequisite: One year of university French or its equivalent.

S 4. Composition and Conversation.—Composition; conversation; life
and customs of the French people. Talbot's *Le Francois et sa patrie*. (1).

Mr. CARRY

Prerequisite: The approval of the instructor.

S 24. Moliere.—Life and times; study and interpretation of his master-
pieces. Lectures; collateral reading; essays. (1 or more.) Professor OLIVER

Prerequisite: Two years of university French or an equivalent.

S 100. Seminar.—Graduate work for properly qualified students.

Professor OLIVER

SCANDINAVIAN LANGUAGES AND LITERATURE

(See GERMANIC LANGUAGES AND LITERATURE.)

THE SOCIAL SCIENCES

(See ECONOMICS, HISTORY, POLITICAL SCIENCE, and SOCIOLOGY.)

SOCIOLOGYEDWARD CARY HAYES, Ph.D., *Professor*HENRY HORACE HIBBS, JR., A.M., *Assistant***SUMMER SESSION ONLY**ULYSSES GRANT WEATHERLY, Ph.D., *Indiana University***Honors**

For honors in sociology twenty-four hours in the major subject are required,
including Sociology 1, 3, 8, and 9.

The minor subjects may be selected, with the approval of this department,
from the following: history, economics, political science, philosophy, and psy-
chology.

Courses for Undergraduates

**1. The Principles of Sociology and Their Application to Present Prob-
lems.—I; (3).**

Professor HAYES

Prerequisite: Junior standing, including if possible the principles of eco-
nomics and elementary psychology.

7. The Social Problems of the Rural Community.—II; (2).

Professor HAYES

Prerequisite: Junior standing.

Courses for Advanced Undergraduates and Graduates

3. Social Evolution.—Modes of social activity among people at different stages of progress; savage, barbarous, and civilized; family organization, practical arts, economic wants and institutions, origins of government and law, codes of morality, religions; inductions from such facts, as to the theory of social evolution and the method of progress. *II*; (3). Professor HAYES

Prerequisite: Sociology 1.

8. General Charities.—Evolution of modern organized philanthropy, public and private; causes and prevention of poverty; organization and management of charitable institutions. *I*; (3). Mr. HIBBS

Prerequisite: Junior standing and Sociology 1 or Economics 1.

9. Criminology.—Nature, causes, and treatment of the criminal; evolution of modern methods of criminal procedure and penology; recent experiments and tendencies. *II*; (3). Mr. HIBBS

Prerequisite: Senior standing, or Sociology 8.

10. Problems of Population.—Immigration; race problems; conditions affecting public health; influences affecting the population type; eugenics; theories and policies of population. *I*; (3). Mr. HIBBS

Prerequisite: Senior standing and Sociology 1, or Economics 1.

11. Principles of Sociology.—Fundamental principles and main teachings of sociology, with practical applications. *I*; (3). Professor HAYES

Prerequisite: Senior standing.

12. The Labor Problem.—The same as Economics 12.

Prerequisite: Economics 1, 3; students whose major subject is sociology and who have had 6 hours in history, and Sociology 1, may be admitted without Economics 3.

14. Social Statistics.—Social investigation and research. Social and community surveys. The verification of sociological laws and principles by means of the statistical method. The study of vital statistics and population in the light of data afforded by official publications and special investigations. The statistical method applied to the study of social problems. *II*; (3). Mr. HIBBS

Prerequisite: Sociology 1 or 11; or Economics 1, and, except in special cases, Sociology 8 or 10.

[15. The Family.—Evolution of the family and marriage; educational, moral, and political significance at different stages of social development. *II*; (3). Not given in 1914-15.]

21. Socialism and Social Reform.—The same as Economics 21.

Prerequisite: Economics 1, 3; students whose major subject is sociology and who have had 6 hours in history, and Sociology 1, may be admitted without Economics 3.

[20. Social Education.—Education as a factor in social progress; present day educational policy and organizations in the light of theoretical and applied sociology. *II*; (3). Not given in 1914-15.

Prerequisite: Senior standing, and Sociology 1 or Psychology 1.]

Courses for Graduates

Preparation for graduate work in sociology must include at least the equivalent of twelve semester hours in the social sciences, of which at least three must

be in sociology, and three in the principles of economics. The remainder may be in any combination of these two subjects, or of history and political science.

The courses open to graduate students in this department are of two classes. Those of the first class deal with the principles of general sociology; these principles relate to the essential nature of customs, institutions, and other forms of social activity, the correlations between them, the types of causes by which they are affected, and the method by which they are evolved, all of which apply equally to the forms of social activity whether they are employed in the service of economic, political, or other purposes. The courses of the second class treat, in the light of the principles of general sociology, the practical social problems of the present.

The library has most of the standard works in sociology by American, English, and European authorities, a large collection of books on various sociological problems, and an extensive list of periodicals. Special attention is given to ethnographic and anthropologic materials.

[101. **Sociological Method.**—The method of advancing the science, adaptability to sociological investigation of certain methods described in Pearson's *Grammar of Science*, Wundt's *Methodenlehre*, zweite abtheilung., Seignobos' *La Méthode Historique Appliquée aux Sciences Sociales*, Bernheim's *Historische Methode*, Spencer's *Study of Sociology*, and Giddings' *Inductive Sociology*. *Three times a week; I; (1 unit)*. Not given, 1914-15.]

102. **The Development of Sociology.**—Readings in the works of writers who have contributed most to the development of sociology; discussions; supplementary lectures. *Twice a week; I, II; (1 unit)*. Professor HAYES

150. **Seminar.**—*Three to six hours a week; I, II; (1 or 2 units)*.

Professor HAYES, Mr. HIBBS

SUMMER SESSION COURSES

S 1. **Principles of Sociology.**—Lectures; discussions; assigned reading. (2).

Professor WEATHERLY

*S 10.—**Population.**—Malthus' "Principle" and its critics; problems of American population; immigration, race mixture, conditions affecting public health, death-rate, birth-rate, "race-suicide," marriage, and divorce; selective influences at work on the "population type." (2).

Professor WEATHERLY

*S 3. **Social Evolution.**—Comparative study of modes of social activity among people at different stages of progress, savage, barbarous and civilized; family organization, practical arts, economic wants and institutions, origins of government and law, codes of morality, religions; inductions from such facts as to the theory of social evolution and the method of progress. (1).

Professor WEATHERLY

SPANISH

(See ROMANCE LANGUAGES AND LITERATURE)

VETERINARY SCIENCE

DONALD MCINTOSH, V.S., *Professor*

4. **Anatomy, Physiology, and Diseases of Domestic Animals.**—The organs of mastication, digestion, respiration; circulation, and lymphatic system; the urinary organs; the skin. *I; (5)*.

Professor MCINTOSH

5. Anatomy, Physiology, and Diseases of Domestic Animals.—The nervous system, bones, joints, feet, eye, and generative organs; epizootic and contagious diseases; catarrhal fever; pyemia; septicaemia; rheumatism; tuberculosis; fistula of the withers; poll-evil; wounds; internal parasites. *II*; (5).

Professor MCINTOSH

6. Clinic.—The free clinic is held every Saturday morning from ten to twelve o'clock. Animals are examined, operated upon, and prescribed for. This class is of benefit to the student as he has the opportunity of seeing the cases and assisting in the work. *I, II*; (1).

Professor MCINTOSH

Prerequisite: Registration in Veterinary Science 4 and 5.

ZOOLOGY

HENRY BALDWIN WARD, Ph.D., *Professor*

JOHN STERLING KINGSLEY, D.Sc., *Professor*

FRANK SMITH, A.M., *Professor*

CHARLES ZELNY, Ph.D., *Associate Professor*

VICTOR ERNEST SHELFORD, Ph.D., *Assistant Professor*

HARLEY JONES VANCLEAVE, Ph.D., *Instructor*

HENRY GUSTAV MAY, B.S., *Research Assistant*

BESSIE ROSE GREEN, A.M., *Assistant*

RALPH HARLAN LINKINS, A.M., *Assistant*

HARRY VIRL HEIMBURGER, A.B., *Assistant*

HOMER ELDON CHENOWETH, A.B., *Graduate Assistant*

HARRIET BELL MERRILL, M.S., *Graduate Assistant*

JESSE LEROY CONEL, A.M., *Graduate Assistant*

THOMAS BYRD MAGATH, M.S., *Graduate Assistant*

GEORGE MARSH HIGGINS, B.S., *Graduate Assistant*

HERBERT EDMOND METCALF, B.S., *Graduate Assistant*

RACHEL BAUMGARTNER, A.B., *Graduate Assistant*

CHARLES WEST REDWOOD, *Scientific Artist*

SUMMER SESSION ONLY

FRANKLIN DAVIS BARKER, Ph.D., *University of Nebraska*

WALES HARRISON PACKARD, Ph.D., *Bradley Polytechnic Institute*

Courses 1 and 2 constitute a survey of the subject, extending through the year and forming an introduction to later work. In the second year, a student may choose as a line of work either morphological, experimental, ecological, faunistic, or systematic courses. The courses on microscopical technique (3), heredity and evolution (5), and current literature (20), are of value for all students. Medical students should take courses 3 and 6 the second year. Those preparing to teach zoology in the high school will find invertebrate morphology (4), field zoology (16, 17), and ecology (9, 11), of value, and should not overlook the importance of a course in general entomology.

Courses for Undergraduates

1. General Zoology.—Animal biology; structure; function and inter-relations of animal forms; origin and development of animal life; the simpler and best established generalizations in zoological theory. Lectures; laboratory; quiz work. *I* or *II*; (5).

Professor WARD, Assistant Professor SHELFORD, Dr. VANCLEAVE, and assistants

2. Vertebrate Zoology and Comparative Anatomy.—Classification of the Chordata; the early stages of vertebrate embryology; vertebrate tissues; systems of organs considered in respect to their anatomy, function, ontogeny, and evolution in the vertebrate series; anatomical studies of types of the Chordata. Lectures; laboratory; quiz work. *II*; (5).

Professor KINGSLEY and assistants

Prerequisite: Zoology 1.

4. Invertebrate Morphology.—Laboratory; lectures; demonstrations; invertebrate structure and development. *II*; (3).

Dr. VANCLEAVE

Prerequisite: Zoology 1.

5. Heredity and Evolution.—(a) Facts and present views. (b) The proofs of organic evolution; a discussion of the probable factors involved. Lectures; demonstrations; assigned reading. *II*; (2).

Associate Professor ZELNY

Prerequisite: One year of university work.

16. Field Ornithology.—The birds of the vicinity. Identification; food relations; seasonal distribution; migration activities. (Students are advised to provide themselves with opera or field glasses.) Field work; lectures. *II*; (2).

Professor SMITH and assistant

19a-19b. Advanced Ornithology.—(Continuation of 16.) Difficult groups of birds; economic and technical literature. *I, II*; *(2 to 5). Professor SMITH

Prerequisite: Zoology 16 or equivalent.

Courses for Advanced Undergraduates and Graduates

3. Microscopical Technique and General Vertebrate Embryology.—Vertebrate embryo in early stages of development; methods of fixation, embedding, section cutting, staining and mounting; preparation of material for use in introductory embryology. Lectures; laboratory. *I*; (3).

Professor KINGSLEY and assistant

Prerequisite: Zoology 1, 2.

6. Vertebrate Organogeny.—Development of the organs of the vertebrate body. Lectures; assigned readings, laboratory studies on embryos of the chick, dogfish, *Amblystoma*, and pig. (A continuation of course 3; for medical students and others.) *II*; (3).

Professor KINGSLEY and assistant

Prerequisite: Zoology 1, 2, 3.

9. Animal Ecology.—The relation of animals to their environment; processes of changes in environment and their influence upon animal life; the local fauna and the conditions under which it lives; methods of observation and making notes. Arthropods, mollusks, reptiles, amphibians, and fishes. Lectures; field work; laboratory, and assigned reading. *II*; (3).

Assistant Professor SHELFORD

Prerequisite: One year of zoology, or two years of university work, including Zoology 1.

11. Animal Ecology and Geography.—(Experimental Course.) The physiology of environic relations; facts, principles, and methods of analysis of behavior. The world and regional aspects of animal behavior and ecology;

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

including animal distribution as related to climate and vegetation and some consideration of its origin and its dynamic relations. Lectures; laboratory work; field excursions. *I*; (5). Assistant Professor SHELFORD

Prerequisite: Two years of university work; including Zoology 1 and 9.

13. Experimental Embryology and Regeneration.—Lectures; demonstrations. *I*; (2). Associate Professor ZELENY

Prerequisite: Three years of university work, including one year in zoological courses.

14a-14b. Experimental Embryology and Regeneration.—(Laboratory.) Individual work. *I, II*; *(2 to 5). Associate Professor ZELENY

Prerequisite: Three years of university work, including one year in zoological courses.

15. Variation and Heredity.—The factors of organic evolution; animal breeding; eugenics. Lectures and demonstrations. *II*; (2). Associate Professor ZELENY

Prerequisite: Three years of university work, including one year in zoological courses.

15a-15b. Variation and Heredity.—(Laboratory.)—Individual work. *I, II*; *(2 to 5). Associate Professor ZELENY

Prerequisite: Three years of university work, including one year in zoological courses.

17. Field Zoology.—Collection, preservation, and identification of common representatives of the lower vertebrates and of land and fresh-water invertebrates (excluding insects) in the vicinity; identification work on living and preserved material from some of the larger rivers and lakes. Habits and life histories of selected forms. Field and laboratory work; assigned readings. *I*; (4). Professor SMITH and assistant

Prerequisite: One year in zoology, and senior standing.

18. Advanced Field Zoology.—More restricted problems in connection with the local fauna; taxonomic or distributional problems. (A continuation of course 17.) *II*; *(3 to 5). Professor SMITH

Prerequisite: Zoology 17, or equivalent.

22-23. Morphology of Vertebrates.—The skeleton and the brain, the cranial nerves, and the eye and ear. Lectures; laboratory work; dissection of types. *I, II*; (4). Professor KINGSLEY

Prerequisite: Zoology 1, 2, 3 and 6.

21a-21b. Introduction to Zoological Research.—Investigation of topics, usually repeating the work of earlier investigators; the morphology, life history, or reciprocal relations of invertebrate forms. Laboratory; conferences; assigned reading. *I, II*; *(2 to 5). Professor WARD

Prerequisite: One year in zoological courses, and senior standing.

20a-20b. Current Literature.—Meetings of the instructors and advanced students of the department for the presentation and discussion of the results of

*In registering for a course with variable credit hours, a student must put down on his study-list, *not* the possible hours, as shown here, but the number of hours for which he intends to take the course; e. g., not 2-5, but 2, or 3, or 4, or 5.

recent zoological investigation. (Open to all students of zoology; should be taken by those intending to graduate with a thesis.) *I, II; (1).*

Associate Professor ZELENY

Prerequisite: Three years of university work, including one year in zoology.

8a-8b. Thesis Investigation.—Individual work on assigned topics. *I, II; (5).*

Professor WARD, Professor KINGSLEY, Professor SMITH, Associate Professor ZELENY, Assistant Professor SHELFORD

Prerequisite: Two years in zoological courses.

Courses for Graduates

Two years of undergraduate work in zoology are ordinarily presupposed for entering upon graduate study in the department. When the work is chosen for a minor the courses listed for graduates and undergraduates, to be acceptable, must be preceded by at least one full year's undergraduate work in zoology. Work done at other institutions will be valued on conference with the head of the department.

102. Selected Topics from Vertebrate Morphology.—The origin of vertebrates, the segmentation of the head, the morphology of special systems. *Twice a week; I; (½ unit).*

Professor KINGSLEY

107. Parasitology.—Animal parasites; their relations to disease; origin and biological significance of parasitism. Conferences; assigned readings; demonstrations. *Twice a week; I, II; (1 unit).* Given in 1914-15 and in alternate years.

Professor WARD

109. Animal Response.—Animal behavior; the regulatory mechanisms of organisms—neutrality, osmotic pressure, immunity, and temperature, considered in relation to natural environments. *Twice a week; II; (1 unit).*

Assistant Professor SHELFORD

113. Experimental Zoology.—Experimental embryology, regeneration, variation, and heredity. *Two to five times a week; I, II; (1 to 2 units).*

Associate Professor ZELENY

117. Faunistic Zoology.—Taxonomy, distribution, and ecology; field work, conference, and lectures. Students have the advantage of the collections, library, apparatus, and operation of the State Natural History Survey. *Twice a week; I, II; (1 to 2 units).*

Professor SMITH

121. Individual Research Courses.—

(a) ZOOLOGICAL PROBLEMS Professor WARD

(b) FAUNISTIC AND SYSTEMATIC ZOOLOGY Professor SMITH

(c) ANIMAL ECOLOGY AND BEHAVIOR Assistant Professor SHELFORD

(d) VERTEBRATE MORPHOLOGY Professor KINGSLEY

(e) EXPERIMENTAL ZOOLOGY Assistant Professor ZELENY

[127. Theories of Animal Phylogeny.—Relations of animal groups; signification of so-called intermediate forms; invertebrate larval forms and of theories of descent based on them. Lectures; assigned readings; laboratory. *I, II; (1 unit).* Not given in 1914-15. To be given in 1915-16.]

Professor WARD

SUMMER SESSION COURSES

Courses for Undergraduates

S 1. General Zoology.—Living matter, functional activities of animals, geographical distribution of animals, evolution, heredity. (5).

Professor BARKER and Dr. PACKARD

S 19. Teachers' Course.—For present and prospective teachers of geology, especially in high schools. Training and preparation; a uniform high-school course in zoology; the correlation of class-room and laboratory work; the organization of class and laboratory work; critique of text-books and laboratory manuals; field work in zoology; the making of laboratory apparatus; collection of materials for demonstration and laboratory use. (1.)

Professor BARKER

Prerequisite: Open to teachers of zoology, to those having had a course in zoology, and to those taking the course in General Zoology.

S 7. Human Biology.—Structure, functions, and hygiene of the human body. For teachers of high-school biology and physiology. The effects of drugs and narcotics; the development of man; heredity; eugenics. Laboratory. (3.)

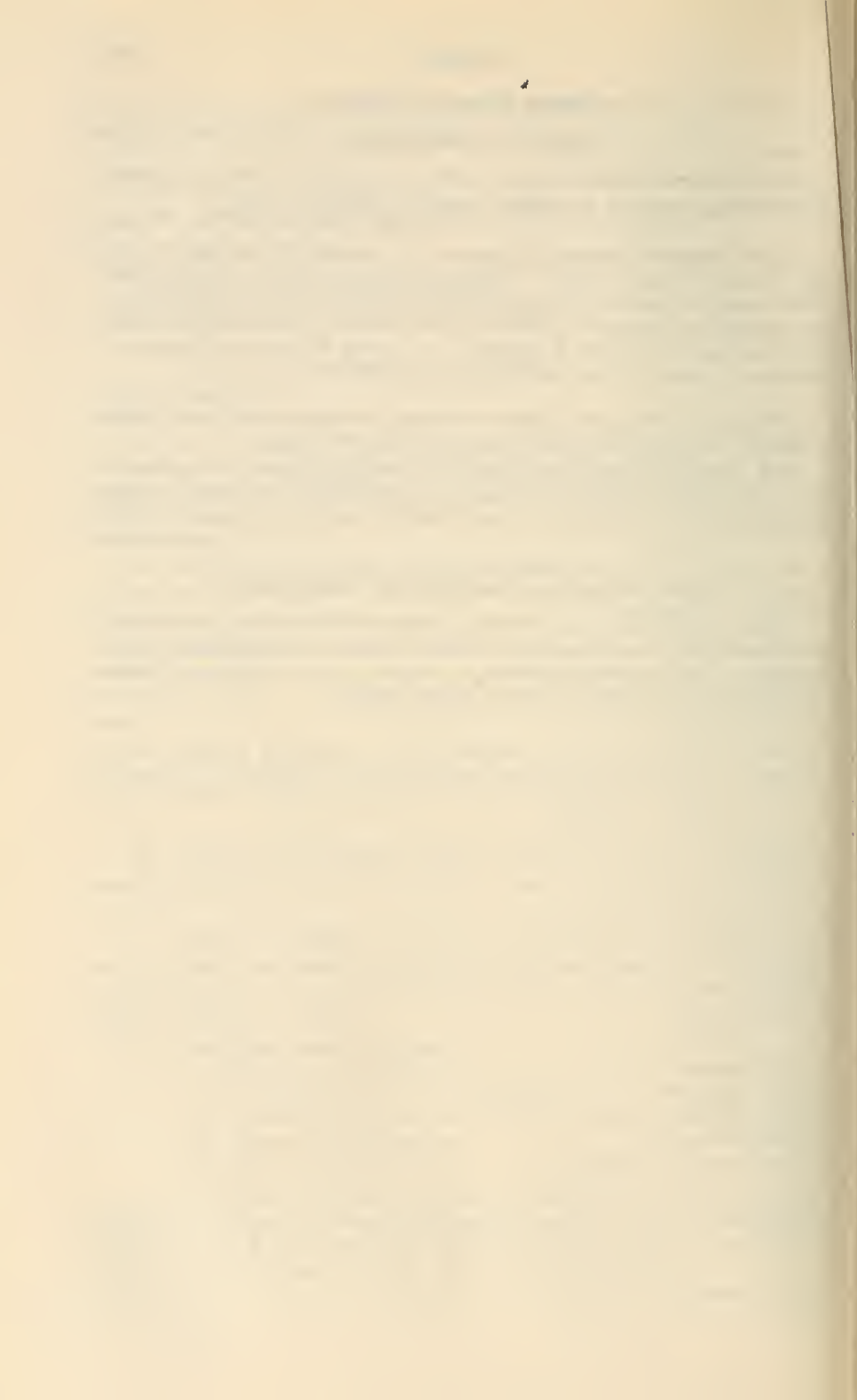
Dr. PACKARD

Course for Graduates and Advanced Undergraduates

***S 21. Introduction to Zoological Research.**—Morphology, life history, or reciprocal relations of invertebrate forms. Laboratory; conferences; assigned reading.

Professor BARKER

Prerequisite: One year of college work in zoology.



PART IV
UNIVERSITY EXTENSION

UNIVERSITY EXTENSION

Extension work has not been organized as a separate administrative unit in the University of Illinois. Several departments, however, have initiated activities, both on the campus and in the State at large, which serve to make some of the facilities of the University available to groups of mature persons who are engaged in various industries and professions.

AGRICULTURE

Each of the departments of the College of Agriculture does extension work and so far as possible provides special men for this purpose. In addition to this, a separate Department of Agricultural Extension conducts extension enterprises that do not deal with technical subjects, and cooperates with the other departments in projecting their work in the State.

Some of these more general extension enterprises are:

(1) A two-weeks "Short Course," known as the Corn Growers' and Stockmen's Convention, held annually at the College of Agriculture since 1898. The enrollment in this course in 1914 was 1065. The work includes lectures, conferences, and demonstrations in the subjects of stock-judging, milk-testing, farm mechanics, and farm crops. (Omitted in 1915, on account of the "foot and mouth disease.")

(2) Agricultural-extension schools of a week's duration—about thirty held in different parts of the State during 1914-15.

(3) Demonstrations held in connection with soil-fertility and crop fields throughout the State.

(4) Cooperation, by furnishing teachers and lecturers with other educational agencies for rural communities, e. g., farmers' institutes, special lecture railway trains, the Boys' State Fair School, etc.

(5) Educational exhibits at fairs and expositions.

(6) School and community excursions to the University.

For the courses in the theory and practise of agricultural-extension work offered in the College of Agriculture, see under "Agricultural Extension" in the General Description of Courses, Part III.

Under the provisions of the Smith-Lever Act, approved by the President of the United States on May 8, 1914, the University of Illinois has undertaken the following additional extension activities in conjunction with the United States Department of Agriculture:

(1) Cooperation with county farm bureaus in the employment of agricultural advisers.

(2) Cooperation with local associations in home-economics demonstrations.

(3) Employment of extension specialists in agriculture and home economics as special advisers in the field.

(4) Cooperation with the United States Department of Agriculture in its extension activities.

BUSINESS

The University offered, during the week of February 1-6, 1915, at Urbana, a short course for business men, designed to meet the needs of both employer and employee.

Instruction was given by the regular members of the University staff of the Courses in Business Administration, assisted by members of allied departments. Among the subjects treated were: commercial law, banking, railroad rates, railroad claims, credits and collections, accountancy, advertising, salesmanship, problems in the administration of charity, and insurance. A part of each instruction period was devoted to the discussion of problems that business men particularly are called on to solve. This method was intended to bring to the attention of the members of the different classes the best practices in their respective businesses. There were also lectures of a more general nature on municipal finances, local utilities, tax reform, and business methods in public institutions. There were no entrance requirements for this course, and no fees were charged.

CERAMICS

Besides offering two four-year technical courses, the department of ceramics cooperates with the clay and allied industries by offering annually, at Urbana, during the second and third weeks in January, a two-weeks industrial course in the principles underlying the manufacture of clay products, for those who have not the time nor the preparation required for academic studies. The work includes lectures, laboratory work, practise in firing kilns, and informal gatherings for question-asking. A common-school education is sufficient to enable one to do the work of this course. No charge of any kind is made. The number enrolled in January, 1914, was 51.

EDUCATION

Model and Demonstration Teachers' Institute

In co-operation with the county superintendents of Champaign and Piatt Counties, the department of education held at the University, during the week of August 3, 1914, a model and demonstration teachers' institute. A report of this institute has been published as a bulletin of the School of Education.

Extension Lectures

At the invitation of school authorities of Belleville, Champaign, Danville, Springfield, and Urbana, members of the department of education have, during 1914, given series of from four to eight lectures to the teachers of these cities. In other cities one or two lectures are given each year. The four members of the department delivered during 1914 about one hundred lectures before Illinois audiences.

HIGHWAY ENGINEERING

In January, 1914, the department of civil engineering offered a two-weeks course in highway engineering, primarily for the county superintendents of highways, then recently appointed under the Tice road law. One hundred

ninety-one persons, including sixty-three of the sixty-six county superintendents then appointed, were enrolled. Addresses were made by members of the technical staff of the State Highway Commission, members of the staff of the department of civil engineering of the University, the state engineers of several adjoining states, and other prominent engineers.

A similar but more advanced course was planned for January, 1915, but was given up for the year, at the request of the State Highway Commission, and on the advice of the State Veterinarian, on account of the "foot-and-mouth disease".

HOUSEHOLD SCIENCE

The Department of Household Science has a staff of seven extension workers, whose activities include the following:

1. Correspondence.—Numerous requests come from individuals and clubs for help in solving some problem of preparing food, planning a house, or feeding a child, or in preparing topics for club study. All such requests receive careful attention.

2. Farmers' Institutes.—By arrangement with the Illinois Farmers' Institute a representative of the department is sent to the county farmers' institute in each of the 102 counties of the State, if desired.

3. The School for Housekeepers.—This is held annually, at Urbana, during the last two weeks in January. It offers instruction in food, clothing, and shelter, and provides an opportunity for the discussion of some of the fundamental problems of home life and management. The attendance has increased during the past six years from 45 to 480. No fees are charged in connection with this school.

4. Extension Courses.—Two such courses, one in cooking, and one in sewing, are offered at Urbana for four weeks immediately following the two-weeks School for Housekeepers, thus affording six weeks' instruction in all. The number who may be accommodated in this course is limited, and people are received in the order of their application. No fees are charged in these courses.

5. Movable Schools.—The department of household science will, so far as possible, provide instruction on request for a movable school in any community which is sufficiently interested to pay the local expenses (hire of hall, etc.) and the traveling expenses and living expenses for the week of either one instructor or two instructors. During the year 1914 eight two-instructor and twelve one-instructor movable schools were held in different parts of the State. The enrollment in these schools aggregated 1,640 students.

The following are the programs offered during the year 1914-15 in one-instructor and two-instructor schools respectively:

Program for Movable School with One Instructor

Monday	2:00— 3:30	Talk and Discussion—Food requirements for the body.
Tuesday	2:00— 4:00	Discussion—Food containing nitrogen. Demonstration—Protein foods: Milk, eggs, cheese.
Wednesday	2:00— 4:00	Discussion—Protein and fat in the diet. Demonstration—Meats: Fats.
Thursday	2:00— 4:00	Discussion—Carbohydrates in the diet. Demonstration—Starchy vegetables; bread.
Friday	2:00— 4:00	Discussion—Fruits and green vegetables.

Program for Movable School with Two Instructors

Monday	2:00— 3:00	Meaning of household science to the housekeeper (shelter, clothing, food).
	3:00— 4:00	Food problems (introduction),
	4:00— 4:30	Organization of girls' class.
Tuesday	9:00—10:30	Girls' class—Protein foods: Milk, eggs, custard, junket, creamed eggs.
	10:30—11:30	General class—Better living conditions; household sanitation.
	2:00— 2:50	Discussion—Foods containing nitrogen.
Wednesday	2:30— 4:00	Demonstration—Eggs, cheese.
	9:00—10:30	Girls' class—Uses of tough and tender meat.
	10:30—11:30	The bedrooms and living rooms.
	2:00— 2:30	Protein and fat in the diet.
Thursday	2:30— 4:00	Demonstration—Meats; frying.
	9:00—10:30	Girls' class—Starchy vegetables; breads.
	10:30—11:30	The kitchen; household conveniences.
	2:00— 2:30	Carbohydrates in the diet.
Friday	2:30— 4:00	Demonstration—Sugar and starches; bread.
	9:00—10:30	Girls' class—Preparation of fruits.
	10:30—11:30	Selection and care of clothing.
	2:00— 2:30	Water and mineral matter; combinations.
	2:30— 4:00	Demonstration—Fruits and green vegetables; salads.

COMMUNITY ADVISER

The University is endeavoring to connect its activities with the people of the State as represented in their business and neighborhood organizations. It recognizes that the community is the real center of progress and assumes that all substantial advance will be the direct result of the initiative and activity of the people themselves who constitute the personnel of this social unit, that contributions from the University will be mainly in the form of suggestion, stimulus, and information, and that some organic connection between the two is desirable.

This connection is attempted through an officer known as the Community Adviser, who meets with chambers of commerce, neighborhood associations, and other community organizations, advising with them as to the best means of utilizing whatever interests and impulses may be available at the time for furthering the general welfare.

In this way the University seeks to assist in the development of a community consciousness and the building up of a community spirit that is willing to assume the obligations and the labor necessary to the advancement of society as a whole as distinguished from the advancement of the individuals who compose it.

PART V
AUXILIARY SCIENTIFIC BUREAUS

THE AGRICULTURAL EXPERIMENT STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

STAFF

EUGENE DAVENPORT, M.Agr., LL.D., *Director*
CYRIL GEORGE HOPKINS, Ph.D., *Vice-Director*
STEPHEN ALFRED FORBES, Ph.D., *Consulting Entomologist*
DONALD MCINTOSH, V.S., *Consulting Veterinarian*
HENRY LEWIS RIETZ, Ph.D., *Statistician*
BURT EARDLEY POWELL, Ph.D., *Editor, Agricultural Press Bulletins*
ANNA CUSHMAN GLOVER, *Assistant Secretary*

In Agronomy

CYRIL GEORGE HOPKINS, Ph.D., *Chief, Agronomy and Chemistry*
JEREMIAH GEORGE MOSIER, B.S., *Chief, Soil Physics*
LOUIE HENRIE SMITH, Ph.D., *Chief, Plant Breeding*
*JAMES HARVEY PETTIT, Ph.D., *Chief, Soil Fertility*
ORA STANLEY FISHER, B.S., *Assistant Chief, Soil Fertility*
†WILLIAM GEORGE ECKHARDT, B.S., *Associate, Soil Fertility*
AXEL FERDINAND GUSTAFSON, M.S., *Associate, Soil Physics*
ERNEST VAN ALSTINE, B.S., *Associate, Chemistry*
JOSEPH PAUL AUMER, B.S., *Associate, Chemistry*
CLARENCE CHESTER LOGAN, B.S., *Associate, Soils Extension*
SIDNEY VIEL HOLT, B.S., *Associate, Soil Physics*
HAROLD WILSON STEWART, B.S., *Associate, Soil Physics*
HENRY CLYDE WHEELER, B.S., *Associate, Soil Physics*
JOHN EZRA WHITCHURCH, B.S., *Associate, Soil Fertility*
EZEKIEL EDWARD HOSKINS, B.S., *Associate, Soil Fertility*
WILLIAM LEONIDOS BURLISON, M.S., *Associate, Crop Production*
WARD HANSON SACHS, B.S., *Associate, Chemistry*
WALTER BYRON GERNERT, Ph.D., *Associate, Plant Breeding*
ALBERT LEMUEL WHITING, Ph.D., *Associate, Soil Biology*
FREDERICK CHARLES BAUER, B.S., *Associate, Soil Fertility*
FREDERICK MARTIN WILLIAM WASCHER, B.S., *First Assistant, Soil Physics*
FOREST ADDISON FISHER, B.S., *First Assistant, Soil Physics*
FRANK WILLIAM GARRETT, B.S., *First Assistant, Soil Fertility*
WILBUR ROY LEIGHTY, B.S., *First Assistant, Chemistry*
GERTRUDE NEIDERMAN, M.S., *Assistant, Chemistry*
ORR MILTON ALLYN, B.S., *Assistant, Crop Production*
ROBERT WILLIAM DICKENSON, B.S., *Assistant, Soil Physics*
LEO ROSS BINDING, B.S., *Assistant, Chemistry*
HARRISON FRED THEODORE FAHRNKOPF, B.S., *Assistant, Soil Fertility*
GEORGE EDWARD GENTLE, B.S., *Assistant, Soil Physics*

*Deceased, December 30, 1914.

†On leave.

HARRY CHARLES GILKERSON, B.S., *Assistant, Soil Fertility*
 EDWARD HARVEY WALWORTH, B.S., *Assistant, Crop Production*
 HOWARD JOHN SNIDER, B.S., *Assistant, Soil Fertility*
 ARTHUR MAXWELL BRUNSON, B.S., *Assistant, Plant Breeding*
 WARREN RIPPY SCHOONOVER, B.S., *Assistant, Soil Biology*
 CLINTON B CLEVINGER, M.S., *Assistant, Chemistry*
 ORLAND I ELLIS, B.S., *Assistant, Soil Physics*
 HENRY AUGUST DEWERFF, B.S., *Assistant, Soil Physics*
 EDWARD FRITCHOFF TORGERSON, B.S., *Assistant, Soil Physics*

In Animal Husbandry

HERBERT WINDSOR MUMFORD, B.S., *Chief*
 HARRY SANDS GRINDLEY, D.Sc., *Chief, Animal Nutrition*
 WALTER CASTELLA COFFEY, M.S., *Chief, Sheep Husbandry*
 JOHN A DETLEFSEN, D.Sc., *Assistant Chief, Genetics*
 HENRY PERLY RUSK, M.S.A., *Assistant Chief, Beef Cattle*
 JAMES LLOYD EDMONDS, B.S., *Assistant Chief, Horse Husbandry*
 *ARTHUR DONALDSON EMMETT, A.M., *Assistant Chief, Animal Nutrition*
 WALTER FREDERICK HANDSCHIN, B.S., *Associate, Animal Husbandry*
 WALTER EDWARD JOSEPH, Ph.D., *Associate, Animal Husbandry*
 SLEETER BULL, M.S., *Associate, Animal Nutrition*
 HAROLD HANSON MITCHELL, B.S., *Associate, Chemistry*
 WILLIAM HERSCHEL SMITH, M.S., *First Assistant, Animal Husbandry*
 WILBUR JEROME CARMICHAEL, B.S., *First Assistant, Animal Husbandry*
 JAMES BURTON ANDREWS, B.S., *First Assistant, Animal Husbandry*
 ELMER ROBERTS, B.S., *First Assistant, Genetics*
 JOHN JONATHAN YOKE, B.S., *Assistant, Animal Husbandry*
 CHARLES IVAN NEWLIN, M.S., *Assistant, Animal Husbandry*
 MARY HELEN KEITH, B.S., *Assistant, Animal Nutrition*
 CLAUDE HARPER, B.S., *Assistant, Animal Husbandry*
 JAMES WILBUR WHISENAND, B.S., *Assistant, Animal Husbandry*
 †ANTON PRASIL, B.S., *Assistant, Animal Chemistry*

In Dairy Husbandry

HARRY ALEXIS HARDING, Ph.D., *Chief*
 WILBUR JOHN FRASER, M.S., *Chief, Dairy Farming*
 NELSON WILLIAM HEPBURN, M.S., *Assistant Chief, Dairy Manufactures*
 MARTIN JOHN PRUCHA, Ph.D., *Assistant Chief, Dairy Bacteriology*
 ROYDEN EARL BRAND, M.S., *Associate, Dairy Husbandry*
 HARRY MONTGOMERY WEETER, *Assistant, Dairy Husbandry*
 JESSE MELANGTHON BARNHART, M.S., *First Assistant, Chemistry*
 LEROY LANG, M.S., *Associate, Dairy Manufactures*
 WILLIAM TRUMAN CRANDALL, M.S., *Associate, Milk Production*
 RAY STILLMAN HULCE, M.S., *First Assistant, Milk Production*
 OLIVER ARNOLD KELLER, B.S., *Assistant, Dairy Manufactures*
 HARRISON AUGUST RUEHE, B.S., *First Assistant, Dairy Manufactures*
 FRANK ASHMORE PEARSON, B.S.A., *Assistant, Dairy Husbandry*
 WILLIAM WODIN YAPP, M.S., *Assistant, Dairy Husbandry*
 WILLIAM BARBOUR NEVENS, B.S., *Assistant, Dairy Husbandry*
 FRANK TURNER, B.S., *Assistant, Dairy Husbandry*

*On leave.

†Resigned, November 21, 1914.

In Horticulture

JOSEPH CULLEN BLAIR, M.S.A., *Chief*
CHARLES SPENCER CRANDALL, M.S., *Chief, Plant Breeding*
JOHN WILLIAM LLOYD, M.S.A., *Chief, Olericulture*
HERMAN BERNARD DORNER, M.S., *Assistant Chief, Floriculture*
BETHEL STEWART PICKETT, M.S., *Assistant Chief, Pomology*
OSCAR S WATKINS, B.S., *Associate, Horticultural Chemistry*
WARREN ALBERT RUTH, A.M., *Associate, Horticultural Chemistry*
ERNEST WINFIELD BAILEY, M.S., *Associate, Plant Breeding*
CHARLES ELMER DURST, M.S., *Associate, Olericulture*
SIMEON JAMES BOLE, A.M., *Associate, Pomology*
JOHN JOSEPH GARDNER, M.S., *Associate, Pomology*
IRA DENT ALLISON, B.S., *Associate, Horticulture*
THOMAS BREGGER, B.S., *First Assistant, Plant Breeding*
ALFRED JOSEPH GUNDERSON, B.S., *First Assistant, Pomology*
FRED WEAVER MUNCIE, M.S., *First Assistant, Floricultural Chemistry*
GEORGE LEO PELTIER, A.M., *Assistant, Floricultural Pathology*
CHARLES CHRISTIAN REES, A.B., *Assistant, Pathology*
JAMES HUTCHINSON, *Assistant, Floriculture*
AUGUST GEORGE HECHT, B.S., *Assistant, Floriculture*
DUANE TAYLOR ENGLIS, M.A., *Assistant, Floricultural Chemistry*
LEE ELLIS MILES, B.A., *Assistant, Floriculture*
JULIA ALBERTA HARPER, A.B., *Editorial Assistant*

By an act approved March 2, 1887, the national government appropriated \$15,000 per annum to each state for the purpose of establishing and maintaining, in connection with the colleges founded upon the congressional act of 1862, agricultural experiment stations, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." Under this provision the *Agricultural Experiment Station for Illinois* was founded in 1888 and placed under the direction of the Trustees of the University; a part of the University farm, with buildings, was assigned for its use.

The federal grant has since been increased to \$30,000 per year. This is supplemented by state appropriations which make an aggregate fund of nearly a quarter of a million dollars devoted wholly to research in agriculture.

Investigations are conducted in the growing and marketing of orchard fruits, the methods of production of meats and of dairy goods, the principles of animal breeding and of nutrition, and the improvement and the economic production of crops. All the principal types of soil of the State are being studied in the laboratory under glass and in the field. A soil survey is in progress which when finished will map and describe the soil of every farm of the State down to an area of ten acres. Between forty and fifty fields and orchards are operated in various portions of the State for the study of local problems, and assistants are constantly on the road for the conduct of experiments or to give instruction to producer or consumer. The results of investigation are published in bulletins, which are issued in editions of 40,000 and distributed free of charge.

Much of this work is of interest to students, especially of graduate grade, and it is freely available for this purpose, so far as is consistent with the interests of the Station.

THE ENGINEERING EXPERIMENT STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

STAFF

*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Director*

CHARLES RUSS RICHARDS, M.E., M.M.E., *Acting Director*

THE HEADS OF THE DEPARTMENTS OF THE COLLEGE OF ENGINEERING

Special Investigators

HERBERT FISHER MOORE, M.M.E., *Professor of Engineering Materials in the Department of Theoretical and Applied Mechanics*

DAVID FORD MCFARLAND, A.M., M.S., Ph.D., *Assistant Professor in the Department of Chemistry*

WILLIS APPLEFORD SLATER, M.S., C.E., *First Assistant in the Department of Theoretical and Applied Mechanics*

ROBERT BROWDER KELLER, B.S., *First Assistant in the Department of Railway Engineering*

TRYGVE D YENSEN, M.S., E.E., *First Assistant in the Department of Electrical Engineering*

ALONZO PLUMSTED KRATZ, M.S., *First Assistant in the Department of Mechanical Engineering*

HARRISON FREDERICK GONNERMAN, M.S., *First Assistant in the Department of Theoretical and Applied Mechanics*

HAROLD HOUGHTON DUNN, M.S., *Assistant in the Department of Railway Engineering*

LEROY ALONZO WILSON, M.M.E., *Assistant in the Department of Mechanical Engineering*

Research Fellows

JEFFERSON HALL BELT, B.S., *Electrical Engineering*

JULIAN MONTGOMERY, C.E., *Theoretical and Applied Mechanics*

MERLE LOUIS NEBEL, B.S., *Mining Engineering*

ROBERT BEDFORD POGUE, B.M.E., *Railway Engineering*

JASPER OWEN DRAFFIN, B.S., *Theoretical and Applied Mechanics*

WALTER ARTHUR GATWARD, B.S., *Electrical Engineering*

THOMAS ERNEST LAYNG, M.A., *Chemistry*

LESTER CLYDE LICHTY, B.Sc., *Mechanical Engineering*

WILLIAM PENN LUKENS, A.B., *Mechanical Engineering*

EVERETT GILLHAM YOUNG, B.S., *Railway Engineering*

THOMAS WILBUR DIECKMANN, *Half-time Student Assistant in Office of Director*

*On leave.

The Engineering Experiment Station was established by action of the Board of Trustees, December 8, 1903. Its purposes are the stimulation and elevation of engineering education, and the study of problems of special importance to professional engineers and to the manufacturing, railway, mining, and industrial interests of the State and the country. The practical nature of the investigations and their adaptation to present-day needs are assured by means of conferences with committees of the leaders of the State's industrial activities.

The control of the Station is vested in the heads of the several departments of the College of Engineering. These constitute the Station Staff, and, with the Director, determine the character and extent of the investigations to be undertaken.

Up to the present time seventy-six bulletins of value to engineering science have been published. The experiments have related chiefly to tests of high-speed tool steels; the resistance of tubes to collapse; the holding power of railroad spikes; the effect of scale on heat transmission; roof trusses; base and bearing plates in columns and beams; stresses in chain links; extensions of the Dewey decimal system of classification; tests of electric lamps; lighting country homes by private electric plants; street lighting; high steam pressures in locomotive service; rate of formation of carbon monoxide in gas producers; fuel tests; the weathering of coal and the spontaneous combustion of coal; thermal conductivity of fireclay; heat transmissions; freight train resistance; tests of a suction gas producer; tests of concrete; reinforced concrete beams and columns; tests of cast-iron and reinforced concrete culvert pipe; tests of brick columns and terra cotta block columns; tests of timber beams; tests of built-up columns under load; tests to determine the resistance to flow through locomotive water columns; tests of nickel-steel riveted joints; strength of rolled zinc; inductance of coils; mechanical stresses in transmission lines; starting currents of transformers; superheated steam in locomotive service; a new analysis of the cylinder performance of reciprocating engines; effects of cold weather upon train resistance and tonnage rating; coking of coal at low temperatures; characteristics and limitations of the series transformer; electron theory of magnetism; entropy-temperature and transmission diagrams for air; tests of reinforced concrete buildings under load; the steam consumption of locomotive engines from indicator diagrams; properties of saturated and superheated ammonia vapor; reinforced concrete wall footings and column footings; strength of I-beams in flexure; coal washing in Illinois; mortar-making qualities of Illinois sands; bond between concrete and steel; magnetic and other properties of electrolytic iron melted in vacuo; acoustics of auditoriums; tractive resistance of a 28-ton electric car; thermal properties of steam; and analysis of coal with phenol as solvent.

THE STATE LABORATORY OF NATURAL HISTORY

EDMUND JAMES JAMES, Ph.D., LL.D., PRESIDENT

STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., *Director*

CHARLES ARTHUR HART, *Systematic Entomologist*

ROBERT EARL RICHARDSON, A.M., *Biologist, in charge of Biological Station*

VICTOR ERNEST SHELFORD, Ph.D., *Biologist, in charge of Research Laboratories*

MARY JANE SNYDER, *Secretary*

CHARLES EDWIN JANVRIN, Ph.B., B.L.S., *Librarian*

In 1885 the General Assembly passed an act transferring the *State Laboratory of Natural History* from the Illinois State Normal University to the University of Illinois. This laboratory was created for the purpose of making a natural history survey of the State, the results of which should be published in a series of bulletins and reports; and for the allied purpose of furnishing specimens illustrative of the flora and fauna of the State to the public schools and to the State museum. For these purposes direct appropriations are made by the legislature from session to session. Material of all classes has been collected in all parts of the State, field observations and experiments have been conducted, extending over many years, and twelve volumes have been published in the form of bulletins and final reports.

The most important problem upon which the work of the survey is at present concentrated is the effect of drainage operations, sewage contaminations, and other results of industrial occupancy upon the general system of life in our principal rivers.

THE STATE ENTOMOLOGIST'S OFFICE

STAFF

STEPHEN ALFRED FORBES, Ph.D., LL.D., *State Entomologist*
CHARLES ARTHUR HART, *Systematic Entomologist*
WESLEY PILLSBURY FLINT, *Assistant for Central Illinois*
LINDLEY MALCOLM SMITH, B.S., *Assistant for Southern Illinois*
DAVID KENT MACMILLAN, B.S., *Assistant for Northern Illinois*
PRESSLEY ADAMS GLENN, A.M., *Chief Horticultural Inspector*
JOHN RUSSELL MALLOCH, *Illustrator and Custodian*

The work of the *State Entomologist's Office* has been done at the University of Illinois since January, 1885; by legislative enactment in 1899 it was permanently established at the University, the Trustees of which are required by that act to provide for the Entomologist and his assistants such office and laboratory rooms as may be necessary to the performance of their duties.

It is the duty of this officer to investigate all insects dangerous to any valuable property or dangerous to the public health, and to conduct experiments for the control of injuries to persons or property by insects, publishing the results of his researches biennially in his official report. He is required also to inspect and certify annually all Illinois nurseries and all importations of nursery stock, and to maintain a general supervision of the horticultural property of the State with respect to its infestation by dangerous insects and its infection with contagious plant disease.

Twenty-seven reports have now been published by the Entomologist, fourteen of them since the transfer of his office to the University.

THE STATE WATER SURVEY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

STAFF

EDWARD BARTOW, Ph.D., *Director*

SAMUEL WILSON PARR, M.S., *Consulting Chemist*

ARTHUR NEWELL TALBOT, C.E., *Consulting Engineer*

*OTTO RAHN, Ph.D., *Consulting Bacteriologist*

PAUL HANSEN, B.S., *Engineer*

WILFRED FRANCIS LANGELIER, M.S., *Inspector*

HARRY PEACH CORSON, M.S., *Chemist and Bacteriologist*

RALPH HILSCHER, B.S., *Assistant Engineer*

MILFORD EVERETT HINDS, M.S., *Assistant Chemist*

FRED WILBUR TANNER, M.S., *Assistant Bacteriologist*

FLOYD WILLIAM MOHLMAN, M.S., *Assistant Chemist*

HARRY FOSTER FERGUSON, B.S., *Assistant Engineer*

HENRY LAWRENCE HUENINK, M.S., *Assistant Chemist*

WESLEY WALLACE HANFORD, B.S., *Assistant Chemist*

MAURICE CHARLES SJOBLUM, B.S., *Engineering Assistant*

JOHN FRANCIS SCHNELLBACH, B.S., *Engineering Assistant*

ARTHUR NORTON BENNETT, B.S., *Assistant Chemist*

A chemical survey of the waters of the State was begun in the latter part of September, 1895. In 1897 the legislature authorized the continuance of the work and directed the Trustees of the University to establish a chemical and biological survey of the waters of the State. In 1911 the legislature imposed additional duties on the State Water Survey, authorizing the Water Survey to employ field men to inspect water supplies, water-sheds, etc., and to make, free of charge, sanitary examinations of water for citizens of Illinois, and made increased appropriations. The Survey is collecting data concerning the water supplies, sewerage systems, and water-sheds, making chemical and bacteriological examinations to demonstrate the sanitary condition of water supplies and streams, and determining standards of purity for drinking waters. The Survey advises municipal authorities how best to obtain and conserve an adequate supply of pure water for domestic and manufacturing purposes.

The Survey is a division of the department of chemistry of the University of Illinois, and special laboratories are equipped in the Chemistry Building for conducting the work. The engineering division is located in Engineering Hall.

*Absent, 1914-15.

THE STATE GEOLOGICAL SURVEY

COMMISSION

GOVERNOR EDWARD F DUNNE, *Chairman*

PROFESSOR T. C. CHAMBERLIN, Ph.D., D.Sc., LL.D., *Vice-Chairman*

PRESIDENT EDMUND JANES JAMES, Ph.D., LL.D., *Secretary*

STAFF

FRANK WALBRIDGE DEWOLF, B.S., *Director*, Urbana

EDWARD BARTOW, Ph.D., *Consulting Chemist in Water Analysis*, University of Illinois, Urbana

ULYSSES SHERMAN GRANT, Ph.D., *Consulting Geologist in Lead and Zinc Studies*, Northwestern University, Evanston

SAMUEL WILSON PARR, M.S., *Consulting Chemist in Coal Investigations*, University of Illinois, Urbana

CHARLES WESLEY ROLFE, M.S., *Consulting Geologist in Clay Investigations*, University of Illinois, Urbana

ALBERT VICTOR BLEININGER, B.S., *Consulting Ceramist*, U. S. Bureau of Standards, Pittsburgh, Pa.

ROLLIN D SALISBURY, A.M., LL.D., *Consulting Geologist in Preparation of Educational Series*, University of Chicago, Chicago

FRED HALL KAY, B.S., *Assistant State Geologist*, Urbana

THOMAS EDMUND SAVAGE, Ph.D., *Geologist*, University of Illinois, Urbana

STUART WELLER, Ph.D., *Geologist*, University of Chicago, Chicago

GILBERT H CADY, A.M., *Assistant Geologist*, Urbana

E WESLEY SHAW, B.S., *Assistant Geologist in Co-operative Surveys*, Urbana, Ill., and Washington, D. C.

WALLACE LEE, *Assistant Geologist in Co-operative Surveys*, Urbana, Ill., and Washington, D. C.

JUSTA M LINDGREN, A.M., *Chemist*, Urbana

WILLIAM HENRY HERRON, B.S., *Geographer in charge of Topographical Surveys*, Urbana, Ill., and Washington, D. C.

The Forty-fourth General Assembly passed an act, in force July 1, 1905, providing for the establishment at the University of Illinois of the *State Geological Survey*. The Survey is under the control of a Commission, of which the President of the University is an *ex officio* member.

The purpose of the Survey is primarily the study and exploration of the mineral resources of Illinois. Field parties are organized for the investigation of oil, clay, coal, stone, artesian water, cement materials, and road materials, and for general scientific investigations. The Survey is charged also with the duty of making a complete topographical and geological survey of the State. The topographical surveys are now being carried on in co-operation with the United States Geological Survey. These will lead to the publication of a series of bulletins and maps, eventually covering the entire State.

The Forty-fifth General Assembly further charged the Commission with the duty of making surveys and studies of lands subject to overflow, with a view to their reclamation. Work has been carried on in co-operation with the Rivers and Lakes Commission, the United States Geological Survey, and the United States Department of Agriculture, along the Sangamon, Kaskaskia, Big Muddy, Little Wabash, Embarrass, Spoon, and Saline rivers. Reports have been issued on the Little Wabash, Kaskaskia, and Embarrass.

The laboratory work is done in connection with various department laboratories of the University. The equipment includes a working library, maps, and a growing collection, illustrating the geological and the economical resources of the State. Twenty-six bulletins and a large number of maps have been published. Many temporary assistants besides the regular corps are employed each summer.

Under an agreement between the State Geological Survey and the College of Engineering on the one hand, and the United States Bureau of Mines on the other, a branch station has been located at Urbana for the demonstration of modern methods in mine-rescue work, and for the study of mining methods and mine wastes in Illinois.

A similar agreement by the above-named parties provides for a co-operative investigation of the Illinois coal mining industry. The Forty-seventh General Assembly made appropriations to carry on the work for two years, and the Forty-eighth General Assembly repeated the appropriations for an equal period. See page 48.

THE BOARD OF EXAMINERS IN ACCOUNTANCY

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

BOARD OF EXAMINERS

MARQUIS EATON, *Chicago*

*PETER WHITE, C.P.A., *Chicago*

UNIVERSITY COMMITTEE

DAVID KINLEY, Ph.D., LL.D., *Chairman*

CHARLES MAXWELL McCONN, A.M., *Secretary*

EDWARD HARRIS DECKER, A.B., LL.B.

By a law passed in 1903 the State University is made an examining board of applicants for certificates as certified public accountants. To carry out the provisions of the law the Board of Trustees have appointed a board of three examiners to prepare, conduct, and grade examinations, and a University committee to conduct the routine work. Under the law one examination must be held each year in May, but examinations have been held also in November or December of each year in which there were a sufficient number of applicants. All the examinations thus far given have been held in the city of Chicago.

Applicants for the certificate of Certified Public Accountant are required to pass examinations in the theory of accounts, commercial law, auditing, and practical accounting.

The Illinois Society of Certified Public Accountants offers annually a gold medal and a silver medal to be awarded to the persons passing the C. P. A. examination with the highest total marking in all subjects and with the second highest total marking in all subjects respectively.

*Deceased, December 17, 1914.

CO-OPERATIVE INVESTIGATION OF ILLINOIS COAL PROBLEMS AND MINE RESCUE STATION

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

STAFF

College of Engineering

*WILLIAM FREEMAN MYRICK GOSS, M.S., D.Eng., *Dean*

CHARLES RUSS RICHARDS, M.M.E., *Acting Dean*

HARRY HARKNESS STOEK, B.S., E.M., *Professor of Mining Engineering*

STEPHEN OSGOOD ANDROS, A.B., B.S., E.M., *Associate in Mining Engineering*

SPECIAL MINING ENGINEERS AND FIELD SAMPLERS

State Geological Survey

FRANK WALBRIDGE DEWOLF, B.S., *Director, State Geological Survey*

SAMUEL W PARR, M.S., *Consulting Chemist*

FRED HALL KAY, B.S., *Assistant State Geologist*

GILBERT HAVEN CADY, A.B., M.S., *Geologist*

SPECIAL GEOLOGISTS AND FIELD SAMPLERS

United States Bureau of Mines

JOSEPH AUSTIN HOLMES, B.S., D.Sc., LL.D., *Director, United States Bureau of Mines*

GEORGE S RICE, E.M., *Chief Mining Engineer, Pittsburgh, Pa.*

HOWARD I SMITH, B.S. (Min.), *Assistant Mining Engineer*

JOHN W KOSTER, E.M., *Assistant Mining Engineer, studying the use of explosives*

†LOUIS A SCHOLL, B.S., *Chemist, studying the explosibility of coal dust*

JAMES R. FLEMING, *Instructor in Mine Safety*

The department of Mining Engineering of the University of Illinois, the State Geological Survey, and the United States Bureau of Mines are co-operating in the investigation of some of the problems connected with the mining of coal in the State of Illinois, under authority granted by the Forty-seventh General Assembly.

This co-operative work is constructive as well as statistical, based upon accurate data and taking account of all existing conditions, to enable the operators and miners of the State to produce coal more safely, more cheaply, and with less waste.

A force of trained mining engineers, geologists, and chemists has been placed at the disposal of the coal industry of Illinois.

*On leave.

†Resigned, September 22, 1914.

A Mine Explosion and Mine Rescue Station is maintained in Urbana by the United States, in co-operation with the State Geological Survey and the Department of Mining Engineering of the University of Illinois.

The purpose of this station is to interest all connected with the mining industry in the use of breathing resuscitation apparatus in connection with rescue work in mines, as an aid in fighting mine fires, and in the opening of mines which have been sealed on account of fires. The station not only gives demonstrations, but undertakes to train men in the use of such apparatus, the service being rendered gratuitously, and, as far as possible, to all interested in the subject.

ILLINOIS MINERS' AND MECHANICS' INSTITUTES

EDMUND JANES JAMES, Ph.D., LL.D., PRESIDENT

Advisory Committee

CHARLES RUSS RICHARDS, M.E., M.M.E., *Professor of Mechanical Engineering, Head of the Department of Mechanical Engineering, and Acting Dean of the College of Engineering*

HARRY HARKNESS STOEK, B.S., E.M., *Professor of Mining Engineering*

STAFF

ROBERT YOUNG WILLIAMS, A.B., E.M., *Director*

HARRY DRAPER EASTON, B.S., E.M., *Instructor*

EDWARD CLARENCE LEE, B.S., E.M., *Instructor*

WILLIAM LLEWELYN MORGAN, *Instructor*

HARVEY EDSON SMITH, B.S., E.M., *Instructor*

The Illinois Miners' and Mechanics' Institutes were established by Act of the State Legislature, Senate Bill No. 259, approved May 25, 1911. An appropriation of \$15,000 per annum to carry out this authorization was included in House Bill No. 895, approved June 30, 1913.

The purpose of the Institutes, as stated in the Act, is "to prevent accidents in mines and other industrial plants and to conserve the resources of the state."

In the development of this purpose, any and all means may be employed which promise "to promote the technical efficiency of all persons working in and about the mines and other industrial plants and to assist them to better overcome the increasing difficulties of mining and other industrial employments."

The administration of the Institutes is vested in the Trustees of the University. The Trustees have appointed a Director and have placed the Institutes under the general supervision of the department of mining engineering of the University of Illinois.

PART VI
LIST OF STUDENTS, ETC.
(1914-1915)

LIST OF STUDENTS

THE GRADUATE SCHOOL

Albrecht, William Albert—Scholar in Agronomy *A.B., B.S., 1911, 1914	Champaign
Alden, Earle Stanley—English A.B. (<i>Colorado Coll.</i>) 1909 A.M. (<i>Harvard Univ.</i>) 1913	Los Angeles, California
Allen, Louis—French A.B., 1913	Clinton
Allen, Paul William—Dairy Bacteriology B.S. (<i>St. Lawrence Univ.</i>) 1910 M.S. (<i>Cornell Univ.</i>) 1914	Urbana
Allen, Reuben Winfield—Chemistry A.B., M.S. (<i>Univ. of Georgia</i>) 1911, 1913	Thomaston, Georgia
Alvord, Idress Head—History (<i>Howard-Payne Coll.</i>)	Urbana
Anderson, Andrew John Albert—Civil Engineering B.S.M.E. (<i>Lewis Institute</i>) 1913	Chicago
Andrews, James Burton—Animal Husbandry B.S., 1913	Urbana
Andros, Stephen Osgood—Mining Engineering A.B. (<i>Bowdoin Coll.</i>) 1897 B.S., E.M. (<i>Michigan Coll. of Mines</i>) 1902, 1903	Champaign
Babbitt, Albert—Scholar in Mathematics A.B. (<i>Pennsylvania State Coll.</i>) 1914	Philadelphia, Pennsylvania
Babbitt, Harold Eaton—Municipal and Sanitary Engineering S.B. (<i>Massachusetts Inst. of Tech.</i>) 1911	Urbana
Bacon, Gertrude Auld—Scholar in Entomology A.B., M.A. (<i>Pomona Coll.</i>) 1913, 1914	Claremont, California
Bade, Courtland Walter—Electrical Engineering E.E. Diploma (<i>Technicum Mittuuda, Saxony, Germany</i>) 1914	Hanover, Germany
Bair, William Harry—Physics B.S. (<i>Ohio Northern Univ.</i>) 1908 M.S. 1914	SS† Manhattan, Kansas
Baker, James Chamberlain—Philosophy A.B. (<i>Illinois Wesleyan Univ.</i>) 1898 S.T.B. (<i>Boston Univ.</i>) 1905	Urbana
†Ball, John Dudley—Electrical Engineering B.S. 1907	Pontiac
Ball, Theodore Rolly—Chemistry B.S. (<i>Drake Univ.</i>) 1908	(SS) Des Moines, Iowa
Barber, Julia Minetta—Scholar in English A.B., 1913	La Fox
Barbre, Clarence—Organic Analysis (Quantitative) A.B. (<i>Eureka Coll.</i>) 1913 B.S., 1914	(SS) Taylorville
Barnhart, Jesse Melancthon—Animal Chemistry B.S., 1906	Urbana
Bauer, Frederick Charles—Soil Fertility B.S., 1909	(SS) Champaign
Baumgardner, Henry Clay—Animal Husbandry B.Sc. (<i>Ohio State Univ.</i>) 1914	Sugar Grove, Ohio
Baumgartner, Rachel Ann—Zoology A.B. (<i>Kansas Univ.</i>) 1913	Halstead, Kansas
Bayley, Paul Levern—Physics A.B. (<i>Univ. of Arkansas</i>) 1913 M.S., 1914	Ft. Smith, Arkansas
Beattie, George Wilson—Education A.B. (<i>Ripon Coll.</i>) 1901	SS So. Hartford, New York
Beatty, Albert James—Education A.B. (<i>Knox Coll.</i>) 1900	Urbana
Beck, Clyde Byron—English A.B. (<i>Earlham Coll.</i>) 1906	Richmond, Indiana

*Degrees were conferred by the University of Illinois unless otherwise specified. Two degrees from the same institution are indicated thus: A.B., A.M., 1909, 1911.

†Attendance during both the Summer Session of 1914 and the regular session of 1914-15 is indicated by SS in parenthesis; during the Summer Session only, by SS.

‡Candidate for professional degree in engineering.

- Beck, Mary Lavenia—Scholar in English
B.S. (*Coe Coll.*) 1908 (SS) *Morning Sun, Iowa*
- Becker, Albert John—Theoretical and Applied Mechanics
B.S., M.E. (*Univ. of Michigan*) 1903, 1907 (SS) *Grand Forks, North Dakota*
- *Bell, Rodney Linton—Civil Engineering
B.S., 1909 *West York*
- Belt, Jefferson Hall—Fellow in Electrical Engineering
B.S., 1912 *Saybrook*
- Bennett, Arthur Norton—Chemistry
B.S., 1907 (SS) *Champaign*
- Berkema, Ira John—English
A.B., 1910 *Onarga*
- Berninger, Harriett Josephine—Latin
A.B. (*Indiana State Normal*) *Lancaster, Indiana*
- Biegler, Philip Sheridan—Electrical Engineering
B.S. (*Univ. of Wisconsin*) 1905 *Champaign*
- Bishop, Mildred Catherine—History
A.B. (*Brown Univ.*) 1912 *No. Attleboro, Massachusetts*
- Bissell, Don Warren—Organic Chemistry
B.S. (*New Hampshire Coll.*) 1914 *Keene, New Hampshire*
- Bogart, Stella Marshall—Italian
A.B. (*Oberlin Coll.*) 1901 *Urbana*
- Bole, Simeon James—Education
A.B. (*Univ. of Michigan*) 1906 *Champaign*
- Bond, John David—Mathematics
A.B. (*Univ. of Tennessee*) 1909
(Work for A. M. completed) SS *Gallatin, Tennessee*
- Bowden, Robert Douglas—Political Science
A.B. (*State Coll. of Oklahoma*) 1913 SS *Sedalia, Kentucky*
- Brady, St. Elmo—Fellow in Organic Chemistry
A.B. (*Fisk University*) 1908 *Louisville, Kentucky*
- Braham, Joseph Marvin—Physical Chemistry
B.S. (*Univ. of Idaho*) 1914 *Spokane, Washington*
- Braley, Silas Alonzo—Industrial Chemistry
A.B. (*Morningside College*) 1913 *Cherokee, Iowa*
- Bregger, Thomas—Genetics (Plant Breeding)
B.S., 1910 *Champaign*
- Brown, Howard Dexter—Horticulture
B.S., 1914 *Tiffin, Ohio*
- Brown, Hugh Alexander—Electrical Engineering
B.S., 1911 *Urbana*
- Bruner, Mary Viola—Latin
A.B., 1913 (SS) *Mattoon*
- Brunson, Arthur Maxwell—Agronomy
B.S., 1913 *Urbana*
- Brush, Elizabeth Parnham—History (European)
A.B. (*Smith College*) 1909 *Boulder, Colorado*
- Buchen, Walther Albert—English
B.A. (*Univ. of Wisconsin*) 1911
A.M., 1913 *Urbana*
- Bull, Sleeter—Animal Husbandry
B.S. (*Ohio State Univ.*) 1910
M.S. (*Pennsylvania State Coll.*) 1911 *Urbana*
- Burd, Henry Alfred—Fellow in English
B.S. (*Illinois Wesleyan Univ.*) 1910
A.M., 1911 (SS) *Armstrong*
- Burkhardt, Clarence Ware—Industrial Chemistry
A.B. (*Butler Coll.*) 1914 *Elwood, Indiana*
- Burlison, William Leonidas—Agronomy
B.S. (*Okl. A. & M. Coll.*) 1905
M.S., 1908 (SS) *Champaign*
- Burton, Laurence Vreeland—Bacteriology
B.S., M.S., 1911, 1914 *Aurora*
- Callen, Alfred Copeland—Mining Engineering
B.S., M.S. (*Lehigh Univ.*) 1909, 1911 *Urbana*
- Carmichael, Wilbur Jerome—Animal Husbandry
B.S., 1913 (SS) *Urbana*
- Carter, Herbert Melville—Industrial Chemistry
B.S. (*Tufts Coll.*) 1913 SS *Norwood, Massachusetts*
- Caswell, Omar—Education
A.B. (*Indiana Univ.*) 1897
A.M., 1914 SS *Mascoutah*
- Chandler, Edward Marion Augustus—Organic Chemistry
A.B. (*Howard Univ.*) 1913
A.M. (*Clark Univ.*) 1914 *Washington, D. C.*
- Charlton, Ernest Edward—Industrial Chemistry
A.B. (*Grinnell Coll.*) 1913 *Cherokee, Iowa*
- Chen, Ta Che—Electrical Engineering
B.S. (*Nanyang Univ.*) 1909 *Shanghai, China*
- Chenoweth, Homer Eldon—Zoology
A.B., 1913 *So. Charleston, Ohio*

*Candidate for professional degree in engineering.

- Clark, Helen—Fellow in Psychology
Clark, Clifton Wirt—Economic Geology
A.B., 1913
A.B. (*Vassar Coll.*) 1913
- Clark, Karl Adolph—Fellow in Chemistry
A.B., A.M. (*McMaster Univ.*) 1910, 1912
Toronto, Canada
- Clevenger, Charles Henry—Mathematics
B.S. (*Ohio State Univ.*) 1902
M.S. (*Univ. of Chicago*) 1910
Urbana
- Clevenger, Clinton B.—Agronomy
B.Sc., M.S. (*Ohio State Univ.*) 1912, 1913
(SS) Fletcher, Ohio
- *Cleveland, Mortimer Burnham—Architecture
B.S., 1908
Osage, Iowa
- Cobb, Margaret Vara—Education
A.B. (*Radcliffe Coll.*) 1910
A.M., 1913
Falls Church, Virginia
- Colby, Arthur Samuel—Pomology
B.S. (*New Hampshire Coll.*) 1911
Champaign
- *Collins, Ray Arthur—Civil Engineering
B.S., 1909
Manila, P. I.
- Colvin, Esther Margaret—Scholar in English
A.B. (*Albion Coll.*) 1914
Albion, Michigan
- Conel, Jesse LeRoy—Zoology
A.B. (*Milliken Univ.*) 1912
A.M., 1913
Decatur
- Cooke, Delmar Gross—Scholar in English
A.B., 1912
Piper City
- Corson, Harry Peach—Sanitary Chemistry
B.S. (*New Hampshire Coll.*) 1910
M.S., 1912
Urbana
- Crane, Rufus—Botany
A.B. (*Middlebury Coll.*) 1909
B.S. (*Massachusetts Inst. of Tech.*) 1911
No. Hanover, Massachusetts
- Crooker, Sylvan Jay—Scholar in Physics
B.S. (*Carleton Coll.*) 1914
Fairmont, Minnesota
- Cruzan, Myrtle Amy—English
A.B., 1914
SS Mattoon
- Cutler, Floy Fenton—Scholar in German
A.B. (*Hedding Coll.*) 1911
Abingdon
- Dalbey, Nora Elizabeth—Botany
A.B., A.M. (*Univ. of Kansas*) 1913, 1914
Sterling, Kansas
- Dallenbach, John Henry—Electrical Engineering
B.S., 1914
Champaign
- Danielson, Ralph Raymond—Ceramics
B.S., 1914
Chicago
- Darrah, Juanita Elizabeth—Chemistry
A.B., 1913
Champaign
- Davidson, Carl Nathan—Chemistry
A.B. (*Lawrence Coll.*) 1914
Mauston, Wisconsin
- Davis, John William—Electrical Engineering
M.E. (*Cornell Univ.*) 1910
Petersburg, Virginia
- Davis, Mary Belle—Mathematics
A.B., 1901
Urbana
- Davis, Raymond Earl—Civil Engineering
B.S. (*Univ. of Maine*) 1911
(SS) Urbana
- Davis, Robert Lesley—Botany
A.B. (*Univ. of Nebraska*) 1914
Lincoln, Nebraska
- Davis, Ruth Kay—Latin
A.B. (*Greenville Coll.*) 1911
Greenville
- Davison, Ruth Leone—Latin
A.B., 1913
SS Marshall
- Davisson, Bert Stover—Agronomy
A.B. (*Indiana Univ.*) 1911
A.M., 1914
New Richmond, Indiana
- Dean, Paul Marshall—Organic Chemistry
A.B., A.M. (*Univ. of Colorado*) 1908, 1911
(SS) Boulder, Colorado
- Debel, Niels Hinriksen—Fellow in Political Science
A.B., A.M. (*Univ. of Nebraska*) 1913, 1914
Blair, Nebraska
- Dickenson, Robert William—Agronomy
B.S., 1912
Urbana
- Dickerson, Ira Wilmer—Electrical Engineering
B.S., 1909
Newton
- Dixon, Raymond Ephraim—English Literature
A.B. (*Univ. of Wisconsin*) 1909
Dalton, Wisconsin
(Work for A. M. completed)
- *Dodd, Townsend Foster—Electrical Engineering
B.S., 1907
San Diego, California
- Doisy, Edward Adelbert—Fellow in Physiological Chemistry
A.B., 1914
Champaign
- *Dolkart, Leo—Electrical Engineering
B.S., 1903
Moline

*Candidate for professional degree in engineering.

Draffin, Jasper Owen—Fellow in Theoretical and Applied Mechanics B.S. (<i>Univ. of Vermont</i>) 1913		<i>Nayon, Quebec, Canada</i>
Dreesen, William Henry—Economics A.B. (<i>Greenville Coll.</i>) 1907		<i>Urbana</i>
DuBois, Henry Mathusalem—Geology B.S. (<i>Rochester Coll.</i>) 1908		<i>Rochester, Indiana</i>
A.B., A.M. (<i>Indiana Univ.</i>) 1913, 1914		
Dunham, William Arthur—Scholar in Political Science A.B. (<i>Washington Univ.</i>) 1914		<i>St. Louis, Missouri</i>
Durst, Charles Elmer—Horticulture B.S., M.S., 1909, 1912		<i>Urbana</i>
Ebersol, Elmer Tryon—Agronomy A.B., 1902	(SS)	<i>Champaign</i>
Edwards, Forrest Glen—Chemistry A.B. (<i>Lombard Coll.</i>) 1907	SS	<i>Princeville</i>
Eklblaw, Alma Heumann—History A.B., 1910		<i>Urbana</i>
Ekstein, Henry Charles—Chemistry (Work for A. B. completed)		<i>Peoria</i>
Elliott, Erma Lytle—Scholar in Mathematics A.B. (<i>Illinois Woman's College</i>) 1914		<i>Jacksonville</i>
Elliott, John Asbury—Fellow in Plant Pathology A.B. (<i>Fairmount Coll.</i>) 1913		
A.M. (<i>Univ. of Kansas</i>) 1914		<i>Ness City, Kansas</i>
Elston, Leo Weiss—Horticulture A.B., 1913		
B.S., (<i>Rutgers Coll.</i>) 1914		<i>Cumberland, Maryland</i>
Engle, Edgar Wallace—Inorganic Chemistry B.S. (<i>Drury Coll.</i>) 1912		
M.S., 1914		<i>Springfield, Missouri</i>
Englis, Duane Taylor—Chemistry A.B. (<i>Eureka Coll.</i>) 1912		<i>Eureka</i>
A.M., 1914		
Ensign, Newton Edward—Theoretical and Applied Mechanics A.B. (<i>McKendree Coll.</i>) 1905		
A.B. (<i>Oxford Univ.</i>) 1908		<i>Urbana</i>
B.S., 1911		
Eppels, Conrad Joseph—French (<i>Royal Teachers Seminary, Germany</i>)	(SS)	<i>Champaign</i>
Erdahl, Absalom C—Scandinavian Language A.B. (<i>St. Olaf Coll.</i>) 1911		<i>Frost, Minnesota</i>
A.M., 1913		
*Erwin, John Frank—Mechanical Engineering B.S., 1907		<i>Moline</i>
Fager, Daniel Baldwin—Education Graduate (<i>Southern Ill. State Normal</i>) 1883	SS	<i>Vandalia</i>
Fahrnkopf, Harrison Frederick Theodore—Agronomy B.S., 1913		<i>Urbana</i>
Farver, Emery C.—Scholar in Mathematics A.B. (<i>Otterbein Univ.</i>) 1914		<i>North Liberty, Indiana</i>
Faulkner, Leslie William—Electrical Engineering B.S., 1914		<i>Champaign</i>
Fazel, Charles Stever—Scholar in Physics A.B. (<i>Fairmount Coll.</i>) 1914		<i>Wichita, Kansas</i>
Fernholz, John J.—Political Science A.B. (<i>Indiana Univ.</i>) 1914		<i>Urbana</i>
Fisher, Fay Lynton—Scholar in German A.B. (<i>James Millikin Univ.</i>) 1914		<i>Decatur</i>
Fisk, Ira William—Electrical Engineering B.S., M.S., E.E., 1909, 1913, 1914		<i>Urbana</i>
*Flowers, Roy Warner—Architectural Engineering B.S., 1906		<i>Gary, Indiana</i>
Fong, Yue Chor—Electrical Engineering B.S. (<i>Nanyang Univ.</i>) 1912		<i>Karshion, China</i>
Footitt, Frank—Inorganic Chemistry A.B. (<i>Albion Coll.</i>) 1914		<i>St. Johns, Michigan</i>
Ford, Jay Thomas—Industrial Chemistry A.B. (<i>DePauw Univ.</i>) 1914		<i>Pendleton, Indiana</i>
Foster, Laurence Fleming—Chemistry A.B. (<i>Albion Coll.</i>) 1910		
M.S., 1914	SS	<i>Albion, Michigan</i>
Franceway, Margaret—English A.B., 1905	SS	<i>Granville</i>
Frank, Edwin Diederich August—Mechanical Engineering B.S. (<i>Massachusetts Inst. of Tech.</i>) 1906		<i>Milwaukee, Wisconsin</i>
Gardner, Harry—Theoretical and Applied Mechanics B.S. (<i>Univ. of Wisconsin</i>) 1905		<i>Champaign</i>
Garman, Philip—Fellow in Entomology B.S. (<i>Kentucky State Univ.</i>) 1913		<i>Lexington, Kentucky</i>
M.S., 1914		

*Candidate for professional degree in engineering.

Gatward, Walter Arthur—Fellow in Electrical Engineering B.S. (<i>Washington State Coll.</i>) 1913		<i>Spokane, Washington</i>
Gay, Amelia Louise—English A.B., 1912		<i>Rock Port</i>
Gaynor, Elizabeth Prudence Webb—History A.B. (<i>Univ. of Wisconsin</i>) 1907	(SS)	<i>Grand Rapids, Wisconsin</i>
Geiling, Eugene Maximilian Karl—Agricultural Chemistry A.B. (<i>Univ. of Cape of Good Hope, Africa</i>) 1911		<i>Vryberg, South Africa</i>
Geldenhuys, Frans Edward—Education A.B. (<i>Victoria Coll., S. Africa</i>) 1910		<i>Johannesburg, S. Africa</i>
B.S. (<i>Cornell Univ.</i>) 1913		
George, Enoch Franklin—Physics A.B. (<i>West Virginia Univ.</i>) 1914	SS	<i>Red Creek, W. Virginia</i>
Gerlach, Miriam—English A.B., 1911		<i>Doniphan, Missouri</i>
Gerry, Henry Lester—Physiological Chemistry A.B., A.M. (<i>Bates Coll.</i>) 1909, 1912		<i>Lewiston, Maine</i>
Gilmore, Ross Earlby—Industrial Chemistry A.B., A.M. (<i>McMaster Univ., Toronto, Can.</i>) 1911, 1913		<i>Toronto, Canada</i>
Godeke, Harry Frederick—Mechanical Engineering B.S., 1905		<i>Urbana</i>
Graham, William Morland—Sociology A.B. (<i>McKendree Coll.</i>)		<i>Almyra, Kansas</i>
Green, Bessie Rose—Zoology A.B., A.M., 1907, 1910		<i>Ivesdale</i>
Greene, James Henry—Animal Husbandry B.S., 1908	SS	<i>Garrett, Indiana</i>
Griffin, Clare Elmer—Scholar in Economics A.B. (<i>Albion Coll.</i>) 1914		<i>Traverse City, Michigan</i>
Grimes, Nathan Cesna—Mathematics A.B. (<i>Univ. of Michigan</i>) 1906		<i>Urbana</i>
A.M. (<i>Univ. of Wisconsin</i>) 1909		
Gross, Alfred William—Education Ph.B. (<i>North-Western Coll.</i>) 1909	SS	<i>Monticello</i>
Gratopharst, Waldo Edward—Animal Husbandry B. S. (<i>Univ. of California</i>) 1914		<i>Chicago</i>
*Gulley, Laurence Richard—Mechanical Engineering B.S., 1910		<i>Urbana</i>
Haessler, Carl Herman—Philosophy A.B. (<i>Univ. of Wisconsin</i>) 1911		<i>Milwaukee, Wisconsin</i>
A.B. (<i>Oxford Univ.</i>) 1914		
Hake, Joseph William—Physics B.S. (<i>Univ. of Missouri</i>) 1908		
A.B., 1909	SS	<i>Hoyleton</i>
A.M. (<i>Northwestern Univ.</i>) 1913		
Hall-Quest, Alfred Laurence—Education A.B. (<i>Augustana Coll.</i>) 1900	SS	<i>Brooklyn, New York</i>
A.M. (<i>Princeton Univ.</i>) 1902		<i>Halton, Kansas</i>
Hamilton, Clyde Carney—Scholar in Entomology B.S. (<i>Kansas State Agr. Coll.</i>) 1913		
Handling, William Clyde—Zoology A.B., 1909	SS	<i>Lake Fork</i>
Hanford, Alfred Chester—Political Science A.B., A.M., 1912, 1913		<i>Carbondale</i>
Hanford, Wesley Wallace—Sanitary Chemistry B.S., (<i>Wesleyan Univ.</i>) 1913		<i>Middletown, Connecticut</i>
Hanger, James Howard—Education A.B. (<i>Baker Univ.</i>) 1910	(SS)	<i>Rossville, Kansas</i>
A.M. (<i>Univ. of Kansas</i>) 1911		
Hansen, Roy—Agronomy B.S., 1914	SS	<i>Rock Island</i>
Hanson, Frank Blair—Fellow in Zoology A.B. (<i>George Washington Univ.</i>) 1913	(SS)	<i>Bloomington</i>
Harbarger, Sada Annis—English A.B. (<i>Ohio State Univ.</i>) 1906		<i>Columbus, Ohio</i>
A.M., 1909		<i>Urbana</i>
Harder, Oscar Edward—Fellow in Industrial Chemistry A.B., A.M. (<i>Univ. of Oklahoma</i>) 1910, 1911		
Harlan, Charles Leroy—Education A.B. (<i>Indiana Univ.</i>) 1912	SS	<i>Connersville, Indiana</i>
Harper, Claude—Animal Husbandry B.S. (<i>Purdue Univ.</i>) 1914		<i>Ligonier, Indiana</i>
Harrison, Bernice—Education A.B., 1912		<i>Champaign</i>
Harsch, Eugene Milton—Botany A. B. (<i>Bradley Inst.</i>)		<i>Peoria</i>
Harshbarger, James Francis—Education A.B., 1913	SS	<i>Arcola</i>
Hatfield, William Durrell—Chemistry B.S. (<i>Illinois Coll.</i>) 1914	(SS)	<i>Jacksonville</i>

*Candidate for professional degree in engineering.

Head, Jerome Reed—English A.B. (<i>Univ. of Wisconsin</i>) 1914		Madison, Wisconsin
Hebbert, Clarence Mark—Mathematics B.S. (<i>Otterbein Univ.</i>) 1911 M.S., 1914		Bloomdale, Ohio
Heck, Arthur Floyd—Agronomy B.S., 1913		Urbana
Hedlund, Mauritz—Mathematics B.S., M.S. (<i>Dartmouth Coll.</i>) 1912, 1913	(SS)	Worcester, Massachusetts
Heffernan, Ruth Marie—Scholar in English A.B. (<i>Illinois Wesleyan Univ.</i>) 1914		Bloomington
Heimbürger, Harry Virl—Zoology A.B. (<i>De Pauw Univ.</i>) 1911		Kewanee, Indiana
Hendel, Robert Walter, Jr.—Scholar in Chemistry B.S. (<i>Lombard Coll.</i>) 1914		Colchester
Henry, Theodore Spafford—Education A.B. (<i>Hedding Coll.</i>) 1903	SS	Havana
Hepburn, Nelson William—Dairy Husbandry B.S., 1907	SS	Genoa
Hess, Raymond Washington—Organic Chemistry A.B. (<i>Morningside Coll.</i>) 1912 A.M., 1914		Champaign
Higgins, George Marsh—Zoology B.S. (<i>Knox Coll.</i>) 1914		Des Plaines
Hill, Charles Francis—Physics A.B., 1914		Toledo
Hinds, Milford Everett—Bacteriology B.S. (<i>Northwestern Univ.</i>) 1912 M.S., 1914	(SS)	Peotone
Hjort, Axel Magnus—Organic Chemistry A.B., 1914	(SS)	Chicago
Hodsdon, Ruth Elizabeth—History A.B. (<i>Oberlin Coll.</i>) 1913		Lyndon
Hoerner, Frank A—Psychology (Work for A. B. completed)		Peotone
Hofacker, Olga Vera—English A.B. (<i>Carroll Coll.</i>) 1907	SS	Peoria
Hofto, Jacob Arnold—Western History A.B., A.M. (<i>Univ. of North Dakota</i>) 1913, 1914		Grand Forks, North Dakota
Holley, Charles Elmer—Fellow in Education A.B., A.M., 1912, 1913	(SS)	Franklin Grove
Hoskinson, Ottis—Education A.B. (<i>Union Christian Coll.</i>) 1900	SS	Merom, Indiana
Howard, Joseph Whitney—Fellow in Chemistry A.B. (<i>Shurtleff Coll.</i>) 1912 A.M., 1913		Upper Alton
*Howell, Leslie Dillon—Architecture B.S., 1907		Tacoma, Washington
Howell, Lloyd Brelsford—Chemistry A.B. (<i>Wabash Coll.</i>) 1909	(SS)	Urbana
Hsu, Chuan-ying—Railway Administration A.B. (<i>Nanking Univ.</i>) 1905		Chih Chow, China
Hsü, Tsung Han—Geology A.B., 1914		Shantung, China
Huddleston, Samuel David—Education A.B. (<i>Shurtleff Coll.</i>) 1911		Gillespie
Huenink, Henry Lawrence—Sanitary Chemistry A.B. (<i>Carroll Coll.</i>) 1911 M.S., 1913		Cedar Grove, Wisconsin
Hull, Anna Leo—American History A.B., A.M., 1910, 1914		Urbana
Hunter, William Columbus—Economics A.B. (<i>Princeton Univ.</i>) 1905 A.M. (<i>Harvard Graduate School</i>) 1911	SS	Paris
Hursh, Ralph Kent—Ceramics B.S., 1908		Urbana
Hurst, Lawrence—American History A.B. (<i>Indiana Univ.</i>) 1910 A.M. (<i>Wisconsin Univ.</i>) 1914		Martinsville
Hyslop, William Henry—Physics A.B. (<i>Knox Coll.</i>) 1908 A.M., 1911		Galesburg
Jackson, Eva Jane—Household Science A.B., 1912	SS	Champaign
Janson, John Möller—Physiological Chemistry A.B., 1914	(SS)	East Orange, New Jersey
Jennings, Walter Wilson—History (Work for A. B. completed)		Champaign
Jerdan, Arlandus Leon—Scholar in Animal Husbandry B.S. (<i>Univ. of Missouri</i>) 1914		Red Bay, Alabama

*Candidate for professional degree in engineering.

- Jewell, Minna Ernestine—Scholar in Zoology
A.B. (*Colorado Coll.*) 1914
Colorado Springs, Colorado
- Johnston, Joseph Henry—Educational Administration
A.B., A.M. (*Univ. of North Carolina*) 1910, 1914
Chapel Hill, North Carolina
- Jones, Easley Stephen—English
A.B., A.M. (*Univ. of Colorado*) 1907, 1909
A.M. (*Harvard Univ.*) 1913
Urbana
- Jones, Lloyd Theodore—Physics
A.B. (*Lake Forest Coll.*) 1909
M.S., 1912
Raymond
- Jordan, Harvey Herbert—Theoretical and Applied Mechanics
B.S. (*Univ. of Maine*) 1910 (SS) Waltham, Maine
- Kamm, Oliver—Organic Chemistry
B.S., M.S., 1911, 1913 (SS) Highland
- Karr, Walter Gerald—Chemistry
B.S. (*Alfred Univ.*) 1913
Almond, New York
- Karrer, Sebastian—Physics
A.B., A.M. (*Univ. of Washington*) 1911, 1913 (SS) Roslyn, Washington
- Kean, Hugh Pratt—Mathematics
A.B. (*Albion Coll.*) 1906
A.M., 1909
Urbana
- Keller, Oliver Arnold—Dairy Bacteriology
B.S. (*Purdue Univ.*) 1910
Urbana
- Keller, Robert Browder—Mechanical Engineering
B.S. (*Purdue Univ.*) 1908
Louisville, Kentucky
- Kellogg, Amelia Lucinda—Botany
(Work for A. B. completed)
Aurora
- Kelso, Ruth—English
A.B., A.M., 1908, 1909
Columbus, Ohio
- Kempton, Forrest Ellwood—Botany
B.S. (*Earlham Coll.*) 1906
M.S. (*Univ. of Wisconsin*) 1913
Centerville, Indiana
- Kennedy, Luther Eugene—Geology
(Work for A. B. completed)
Springfield
- Kernall, Morris Johnson—Fellow in Zoology
A.B. (*Univ. of North Dakota*) 1906
A.M., 1914
Valley City, North Dakota
- Kessler, James—French
A.B. (*Indiana Univ.*) 1908
Portland, Indiana
- Kile, Jessie June—American History
A.B. (*Rockford Coll.*) 1912
A.M., 1914
Rockford
- Kindred, James Ernest—Scholar in Zoology
A.B. (*Tufts Coll.*) 1914
Dorchester, Massachusetts
- Kingsley, Mary Winship—History
A.B., A.M. (*Tufts Coll.*) 1903
Urbana
- Kirk, Elizabeth—Education
A.B., 1909 (SS) Decatur
- Kirkpatrick, Frank Allen—Ceramics
B.S., 1914
Unionville, Michigan
- Kirkpatrick, Harold H.—Education
A.B., 1897 (SS) Le Roy
- Kirshman, John Emmett—Fellow in Economics
Ph.B. (*Central Wesleyan Coll.*) 1904
Ph.M. (*Syracuse Univ.*) 1909
Fargo, North Dakota
- Knight, Abner Richard—Electrical Engineering
M.E. (*Ohio State Univ.*) 1909
Champaign
- Knight, Charles Kelley—Economics
A.B., A.M. (*Ohio Univ.*) 1912, 1913
Athens, Ohio
- Kremers, Harry Cleveland—Inorganic Chemistry
A.B. (*Hope Coll.*) 1913
Hudsonville, Michigan
- Krieger, Augusta May—German
A.B., 1910 (SS) Peoria
- Lamb, Burley Frank—Fellow in Economics
A.B. (*Albion Coll.*) 1913
A.M., 1914
Hillsdale, Michigan
- Lamkey, Ernest Michael Rudolph—Plant Physiology
A.B., A.M., 1913, 1914 (SS) Riverton
- Lantz, Cyrus William—Plant Physiology
A.B., 1913
A.M., 1914
Birmingham
- *Large, Aaron Buford—Latin
A.B. (*McKendree Coll.*) 1910
East St. Louis
- Lawless, Joseph Conrad—Agronomy
B.S., 1914
Carthage
- Layng, Thomas Ernest—Fellow in Industrial Chemistry
A.B., A.M. (*McMaster Univ.*) 1909, 1912 (SS) Toronto, Canada
- Leatherman, Marion—Political Science
A.B. (*Cornell Univ.*) 1907
Pittsburgh, Pennsylvania

- LeCato, John Marvin—Botany
A.B. (*Univ. of Michigan*) 1913 SS *Harman, Maryland*
- Lee, Henry Rhodes—Industrial Chemistry
A.B. (*Carroll Coll.*) 1914 *Urbana*
- Lee, Ma-li—Education
A.B. (*Columbia Univ.*) 1914 (SS) *Nanking, China*
- Leslie, Harold Deam—Economics
A.B. (*Ohio State Univ.*) 1914 *Dayton, Ohio*
- Lewis, Harry Fletcher—Fellow in Analytical Organic Chemistry
B.S., M.S. (*Wesleyan Univ.*) 1912, 1913 *Pottsville, Pennsylvania*
- Lichty, Lester Clyde—Fellow in Mechanical Engineering
B.S. (*Univ. of Nebraska*) 1913 *Carleton, Nebraska*
- Linkins, Ralph Harlan—Zoology
A.B. (*Illinois Coll.*) 1911 (SS) *Jacksonville*
- Loy, Alice Elizabeth—English
A.B. (*McKendree Coll.*) 1912 SS *Effingham*
- Lucas, James Burleigh—Inorganic Chemistry
B.S., M.S. (*Virginia Polytechnic Inst.*) 1910, 1913 *Riner, Virginia*
- Lukens, William Penn—Fellow in Mechanical Engineering
A.B. (*Swarthmore Coll.*) 1913 *Woodlyn, Pennsylvania*
- McCullough, Elzy Vern—Economics
A.B. (*Tarkio Coll.*) 1903 (SS) *Tarkio, Missouri*
- McComis, Samuel Jay—Education
LL.B. (*Jefferson Univ.*) 1910 SS *Lacon*
- McJohnston, Harrison—Economics
A.B. (*Northwestern Univ.*) 1907 (SS) *Urbana*
- McKellogg, Carl Stone—Chemistry
A.B. (*Oberlin Coll.*) 1914 *Oberlin, Ohio*
- McKenna, Edward Lawrence—Economics
A.B. (*Columbia Coll.*) 1913 *Brooklyn, New York*
- McKinney, Henry Theodore—Education
A.B., 1913 SS *Hudgens*
- Macfarlane, Wallace—Fellow in Agronomy
B.S. (*Univ. of Utah*) 1910 *Logan, Utah*
- Magath, Thomas Byrd—Zoology
Ph.B. (*Emory Coll.*) 1913 *Oxford, Georgia*
- Manuel, William Asbury—Industrial Chemistry
A.B. (*De Pauw Univ.*) 1912 *Greencastle, Indiana*
- Marquis, Stewart Dent—Chemistry
A.B. (*Lake Forest Coll.*) 1911 *Rock Island*
- Marshall, Robert Haskell—Mathematics
A.B., 1914 (SS) *Gamaliel, Kentucky*
- May, Henry Gustav—Zoology
B.S. (*Univ. of Rochester*) 1913 *Dallas, Oregon*
- Mayne, Louis Brawley—English
A.B., 1910 SS *Camden, Indiana*
- Meier, Alice—Scholar in German
A.B. (*Northwestern Coll.*) 1914 *Marshall, Minnesota*
- Merrill, Harriet Bell—Zoology
B.S., M.S. (*Univ. of Wisconsin*) 1890, 1893 *Milwaukee Wis.*
- Metcalf, Herbert Edmond—Zoology
A.B. (*Tufts Coll.*) 1914 *Winchester, Massachusetts*
- Miles, Lee Ellis—Horticulture
A.B. (*Wabash Coll.*) 1914 *Crawfordsville, Indiana*
- Miller, J. Earl—History
A.B., LL.B. (*Kansas Univ.*) 1910, 1912 *Champaign*
- Miller, Marie Breese—Scholar in Household Science
B.S. (*Ohio State Univ.*) 1911 *Columbus, Ohio*
- Miller, Olive Fiedille—French
A.B., 1914 *Atlanta*
- Miller, Wilford Stanton—Education
A.B., A.M. (*Indiana Univ.*) 1910, 1911 *Champaign*
- Miller, William Pitt—Dairy Husbandry
B.S., 1901 *Urbana*
- Mitchell, Harold Hanson—Chemistry
A.B., M.S., 1909, 1913 (SS) *Urbana*
- Mizoguchi, Gundayu—Electrical Engineering
B.S., 1914 *Saga, Japan*
- Mizuno, Tsunekichi—Education
A.B. (*Hiroshima Normal Coll.*) 1908 *Tamura, Japan*
- Mohlman, Floyd William—Sanitary Chemistry
B.S., M.S., 1912, 1914 *Urbana*
- Montgomery, Julian—Fellow in Theoretical and Applied Mechanics
B.S. (*Grayson Coll.*) 1903 *Whitewright, Texas*
- Moore, Charles Ruby—Electrical Engineering
B.S., E.E. (*Purdue Univ.*) 1907, 1910 *Urbana*

- Moore, Laura McAllister—History
A.B. (*Indiana Univ.*) 1892
- Morkel, William Algernon Kingswill—Animal Husbandry
Diploma (*Gov't Agr. Coll., S. Africa*)
- Mosher, Edna—Fellow in Entomology
B.S.A. (*Cornell Univ.*) 1908
M.S., 1913
- Muncie, Fred Weaver—Organic Analytical Chemistry
A.B. (*Wabash Coll.*) 1910
M.S., 1913
- Murray, Forest H.—Mathematics
(Work for A. B. completed)
- Myers, John T.—Chemistry
Ph.B. (*Central Wesleyan Coll.*) 1909
- Myers, Odessa Madge—Scholar in Classics
A.B., 1914
- Nathanson, Jonas Bernard—Physics
A.B. (*Ohio State Univ.*) 1912
A.M., 1913
- Nebel, Merle Louis—Fellow in Mining Engineering
B.S., 1913
- Neill, Alma Jessie—Physiology
A.B., 1913
- Nelson, Ralph A.—Inorganic Chemistry
(Work for B. S. completed)
- Nevens, William Barbour—Dairy Husbandry
B.S. (*Univ. of Wisconsin*) 1914
- Newell, Anna Grace—Fellow in Entomology
A.B., A.M. (*Smith Coll.*) 1900, 1908
- Newell, Clyde Ross—Sanitary Engineering
Ph.B., M.S. (*Yale Univ.*) 1910, 1912
- Newlin, Charles Ivan—Animal Husbandry
B.S., 1912
M.S., 1914
- Nickoley, Edward F.—Economics
A.B., 1898
- Nickoley, Emma May Rhoads—English
A.B., 1899
- Niederman, Gertrude—Chemistry
B.S., M.S., 1908, 1914
- Niver, Roe—Entomology
(Work for A. B. completed)
- Ogawa, Yousabu—Architecture
B.S. (*Univ. of California*) 1914
- Okey, Ruth Eliza—Scholar in Chemistry
B.S. (*Monmouth Coll.*) 1914
- Orcutt, Arthur Henry—Physiology
A.B., B.S., 1914
- Ossa, Louis Lorca—Electrical Engineering
E.E. (*Univ. of Chile*) 1911
- Owens, Raymond William—Scholar in Electrical Engineering
B.S., 1914
- Paine, Olive Allen—Education
A.B., 1914
- Palm, Franklin Charles—Scholar in History
A.B. (*Oberlin Coll.*) 1914
- Parr, Rosalie Mary—Botany
A.B., A.M., 1906, 1911
- Partridge, Newton Lyman—Pomology
B.S., M.S., 1913, 1914
- Pasmore, Daniel Frederick—Fellow in German
A.B. (*Albion Coll.*) 1913
A.M., 1914
- Pearson, Frank Ashmore—Economics
B.S.A. (*Cornell Univ.*) 1912
- Peltier, George Leo—Botany
A.B. (*Univ. of Wisconsin*) 1910
A.M. (*Washington Univ.*) 1912
- Perry, Winifred Almeda—English
A.M., 1914
- Petersen, Elmore—Economics
A.B., B.Com. (*Univ. of South Dakota*) 1911
- Peterson, Alvah—Entomology
B.S. (*Knox Coll.*) 1911
A.M., 1913
- Phelps, James Manley—English
A.B. (*Northwestern Univ.*) 1912
- Phillips, John Breen—Education
A.B., 1912
- Pickler, William Eugene—Botany
A.B. (*Wabash Coll.*) 1914
- SS *Terre Haute, Indiana*
- Cape Town, S. Africa*
- (SS) *Kempt Shore, Nova Scotia*
- (SS) *Paris*
- Mazon*
- SS *Gibson City*
- Mansfield*
- (SS) *Toledo, Ohio*
- (SS) *Urbana*
- Chillicothe*
- Chicago*
- Urbana*
- Northampton, Massachusetts*
- Milford, Connecticut*
- SS *Urbana*
- Beirut, Syria*
- Beirut, Syria*
- (SS) *Chicago*
- North Fairfield, Ohio*
- Berkeley, California*
- Kirkwood*
- Arcola*
- Santiago, Chile*
- Morris*
- N. Woodstock, Connecticut*
- Wellman, Minnesota*
- (SS) *Urbana*
- Chicago*
- Swartz Creek, Michigan*
- Beaver Falls, Pennsylvania*
- (SS) *Grand Rapids, Wisconsin*
- Cornell*
- Vermilion, South Dakota*
- (SS) *Galesburg*
- De Kalb*
- SS *Sullivan*
- Louisville, Kentucky*

*Pierce, Raymond Clark—Civil Engineering B.S., 1903		Genoa
Pinkerton, Matilda Irvine—History A.B. (<i>Monmouth Coll.</i>) 1910	SS	Monmouth
Pinkney, Leslie Arthur—Scholar in Physics A.B. (<i>Wheaton Coll.</i>) 1910		Sterling
Pogue, Robert Bedford—Fellow in Railway Engineering B.M.E. (<i>Kentucky State Univ.</i>) 1913		Lexington, Kentucky
Porter, Francis Marion—Physics B.S. (<i>Ohio Univ.</i>) 1907 M.S., 1911		Urbana
van der Post, Andreas Petrus—Animal Husbandry B.S. (<i>Cornell Univ.</i>) 1915		Philippolis, S. Africa
Potterf, Loran Ogdan—Organic Chemistry A.B., A.M. (<i>Miami Univ.</i>) 1909, 1910		Eaton, Ohio
Prasil, Anton—Animal Chemistry B.S., 1914		Berwyn
Pung, William Sing-Chong—Railway Civil Engineering B.S., 1914		Honolulu, Hawaii
Randolph, Oscar Alan—Physics B.S. (<i>Missouri School of Mines</i>) 1911 M.S., 1913	(SS)	Urbana
Read, John William—Agronomy B.S., M.S. (<i>Univ. of Missouri</i>) 1907, 1908		Columbia, Missouri
Read, Mason Kent—Stratigraphic Geology B.S. (<i>Denison Univ.</i>) 1914		Springfield, Ohio
*Reeder, Claude Hazlett—Electrical Engineer B.S., 1910		Chicago
Rees, Charles Christian—Botany A.B. (<i>Wabash Coll.</i>) 1913	(SS)	Rochester, Indiana
Rees, Edwin Arthur—Organic Chemistry A.B., A.M. (<i>Univ. of Denver</i>) 1913, 1914		Garfield, Utah
Reid, Ernest Alexander—Scholar in Electrical Engineering B.S., 1914		Deer River, Minnesota
Richardson, Clarence Hudson—Mathematics B.S. (<i>State Univ. of Kentucky</i>) 1913	SS	Buffalo, Kentucky
Richart, Frank Erwin—Scholar in Civil Engineering B.S., 1914		Urbana
Roberts, Elmer—Genetics B.S., 1913	(SS)	Urbana
Rolfe, Amy Lucile—Education A.B., 1908		Champaign
Rogers, Anna Sophie—Psychology A.B., A.M., 1911, 1914		Bushnell
Ross, Clarence Samuel—Geology A.B., 1913		Champaign
Ross, John Carl—Chemistry A.B. (<i>South Africa Coll.</i>) 1911	(SS)	Cape Town, South Africa
Rowland, Floyd Elba—Industrial Chemistry B.S. (<i>Oregon Agr. Coll.</i>) 1907 A.B., 1914	(SS)	Corvallis, Oregon
Roy, Surya Kauba—Dairy Bacteriology B.S., 1914		Lucknow, India
Ruehe, Harrison August—Dairy Bacteriology B.S., 1911		Waukegan
Rugg, Harold Ordway—Education B.S., C.E. (<i>Dartmouth Coll.</i>) 1908, 1909		Urbana
Russell, Frederic Arthur—Economics A.B., A.M. (<i>Albion Coll.</i>) 1908, 1909	(SS)	Urbana
Russell, Robbins—Scholar in Chemistry B.S. (<i>Illinois Coll.</i>) 1914	(SS)	Jacksonville
Rutledge, George—Fellow in Mathematics A.B., 1910		Champaign
Sabin, Ethel Ernestine—Fellow in Philosophy A.B., A.M. (<i>Univ. of Wisconsin</i>) 1908, 1914		Madison, Wisconsin
Salisbury, George Washington—Agronomy (Work for B.S. completed)		Astoria
Samuels, Alexander Felix—Physics A.B. (<i>Univ. of Wisconsin</i>) 1910		West Salem, Wisconsin
Sayre, Rollo Clifton—History B.S. (<i>McKendree Coll.</i>) 1909	SS	Grayville
Schaarmann, Emil Ferdinand—German A.B., 1914		Edgington
Schoepperle, Katherine—History (<i>University of Munich</i>)		Hamburg, New York
Scholl, Clarence—Fellow in Sanitary Chemistry B.S., M.S., 1913, 1914	(SS)	Watseka
Schoonover, Warren Rippey—Agronomy B.S. (<i>Occidental Coll.</i>) 1912		Alhambra
Seely, Fred B.—Theoretical and Applied Mechanics B.S. (<i>Worcester Polytechnic Inst.</i>) 1907		Urbana

*Candidate for professional degree in engineering.

Sekine, Sentaro—Railway Engineering B.S., A.B., 1913, 1914		<i>Saitama, Japan</i>
Senay, Charles Timothy—Fellow in Zoology B.S. (<i>Trinity Coll.</i>) 1914		<i>New London, Connecticut</i>
Sharp, Bertha Lee—Political Science A.B., 1914		<i>Urbana</i>
Sharp, Gretchen Aaa—English A.B. (<i>Eureka Coll.</i>) 1913	SS	<i>Eureka</i>
Shepard, Albert Durand—Animal Chemistry B.S. (<i>South Dakota State Coll.</i>) 1914		<i>Brookings, South Dakota</i>
Shiner, Robert Tobias—Animal Husbandry B.S. (<i>Univ. of Missouri</i>) 1914		<i>Braymer, Missouri</i>
Shum, Num Chi—Chemistry B.S., 1915		<i>Canton, China</i>
Simonich, John Lawrence—Electrical Engineering B.S., 1914		<i>Joliet</i>
Skews, Helen—Geology A.B. (<i>Northwestern Univ.</i>) 1913		<i>Urbana</i>
Skinner, Glenn Seymour—Organic Chemistry A.B., 1914	(SS)	<i>Cherokee, Kansas</i>
*Sluss, Alfred Higgins—Mechanical Engineering B.S., 1901		<i>Lawrence, Kansas</i>
Smith, Guy Watson—Mathematics B.S., M.S. (<i>Univ. of Colorado</i>) 1908, 1909		<i>Castle Rock, Colorado</i>
Smith, Rose—Botany A.B., 1911	SS	<i>Gibson City</i>
Snider, Earl Quinter—Entomology A.B., 1906	SS	<i>Urbana</i>
Snider, Howard J.—Agronomy B.S., 1913		<i>New Richmond, Ohio</i>
Spindler, George Washington—German Literature A.B., A.M. (<i>Univ. of Indiana</i>) 1900, 1908		<i>Woodland, Michigan</i>
*Standish, Seymour—Civil Engineering B.S., 1910		<i>Chicago</i>
Stanford, Howard Russell—Agronomy B.S., 1908		<i>Champaign</i>
Stanley, Thomas Blaine—English Literature A.B. (<i>Earlham Coll.</i>) 1913		<i>Noblesville, Indiana</i>
Stanton, William Macy—Architecture B.S., M.S. (<i>Univ. of Pennsylvania</i>) 1913, 1914		<i>Philadelphia, Pennsylvania</i>
Stark, Robert Watt—Agronomy B.S., 1895		<i>Urbana</i>
*Stein, Milton Frederick—Municipal and Sanitary Engineering B.S., 1909		<i>Chicago</i>
Stevens, Wayne Edson—Fellow in History A.B. (<i>Knox Coll.</i>) 1913 A.M., 1914		<i>Avon</i>
Stevenson, Newton Newman—Education A.B. (<i>McKendree Coll.</i>) 1907	SS	<i>Bement</i>
Stewart, Charles Leslie—Fellow in Economics A.B. (<i>Illinois Wesleyan Univ.</i>) 1911 A.M., 1912		<i>Bloomington</i>
Stewart, Harold Wilson—Agronomy B.S., 1909		<i>Urbana</i>
Stiegelmeier, Lilly—History B.S. (<i>Illinois Wesleyan Univ.</i>) 1912		<i>Bloomington</i>
Stinson, Mary Edna—Mathematics A.B. (<i>Western Coll. for Women</i>) 1909	SS	<i>Champaign</i>
Storer, James—Geology A.B., A.M. (<i>Cornell Univ.</i>) 1912, 1914		<i>Buffalo, New York</i>
Streeter, Floyd Benjamin—Fellow in History A.B., A.M. (<i>Univ. of Kansas</i>) 1911, 1912		<i>Urbana</i>
*Stromquist, Walter Gottfrid—Civil Engineering A.B. (<i>Bethany Coll.</i>) 1905 B.S., 1910		<i>Chicago</i>
Stunkard, Horace Wesley—Fellow in Zoology B.S. (<i>Coe Coll.</i>) 1912 A.M., 1914		<i>Walker, Iowa</i>
Sutcliffe, Emerson Grant—English A.B. (<i>Harvard Univ.</i>) 1911 A.M., 1914		<i>Urbana</i>
Swanson, Frederick Curtis—Scholar in History A.B., 1914		<i>Urbana</i>
Sweeney, Merle A.—English A.B. (<i>Hedding Coll.</i>) 1913		<i>Prairie City</i>
Talbot, Kenneth Hammet—Civil Engineering B.S., 1909		<i>Pittsburgh, Pennsylvania</i>
Tanner, Fred Wilbur—Bacteriology B.S. (<i>Wesleyan Univ.</i>) 1912 M.S., 1914	(SS)	<i>Urbana</i>

*Candidate for professional degree in engineering.

- Tao, Wen Tsing—Political Science
(*University of State of New York*)
- Taylor, Everett Harvey—Chemistry
A.B., 1913
- Taylor, Scott Champlin—Industrial Chemistry
B.S., 1913
- TerKeurst, Henry Daniel—Scholar in Education
A.B. (*Hope Coll.*) 1914
- Thomas, Della May—Latin
A.B. (*Oberlin Coll.*) 1884
- Tieje, Ralph Earle—English
A.B., A.M., 1910, 1912
- Tinsley, Raymer Wendell—Scholar in German
A.B. (*Univ. of Kentucky*) 1902
- Tippet, Ralph Waldo—Chemistry
A.B. (*Lawrence Coll.*) 1913
- Turley, Robert Edgar—Scholar in Theoretical and Applied
Mechanics—B.S., 1913
- Valentine, Howard De Witt—Chemistry
B.S., 1913
- VanDoren, Mark Albert—Scholar in English
A.B., 1914
- Virmani, Devi Dyal—Chemistry
A.B. (*Stanford Univ.*) 1913
- Vollweiler, Ernest Henry—Organic Chemistry
A.B. (*Miami Univ.*) 1914
- Waggoner, Harry Dwight—Plant Physiology
A.B., A.M., 1909, 1914
- Waldo, Edward Hardenbergh—Electrical Engineering
A.B. (*Amherst Coll.*) 1888
M.E. (*Cornell Univ.*) 1890
M.S., 1913
- Walker, David E—Education
A.B. (*Lake Forest Coll.*) 1912
- Walworth, Edward Harvey—Agronomy
B.S., 1913
- Warden, Ida Elizabeth—German Literature
Ph.B., A.M. (*Wooster Coll.*) 1906, 1913
- Wardrop, Malcolm Seth—Sociology
A.B. (*Univ. of Mich.*) 1914
- Warner, Earle Horace—Physics
A.B. (*Univ. of Denver*) 1912
A.M., 1914
- Watkins, Gordon—Scholar in Sociology
A.B. (*Univ. of Montana*) 1914
- Watson, Minnie Elizabeth—Fellow in Zoology
A.B. (*Olivet Coll.*) 1909
M.S., 1913
- Watson, Perley Melvin—Education
A.B., 1914
- Weeter, Harry Montgomery—Dairy Bacteriology
A.B. (*Allegheny Coll.*) 1911
- Weiland, Henry Joseph—Chemistry
B.S. (*Univ. of Rochester*) 1913
- Wells, Morris Miller—Fellow in Zoology
B.S. (*Univ. of Chicago*) 1912
- Welo, Lora Alvin—Physics
B.S. (*North Dakota Agr. Coll.*) 1911
- Wesenberg, Thor Griffith—Romance Languages
A.B., A.M. (*Univ. of Pennsylvania*) 1910, 1911
- Westergaard, Harold Malcolm—Engineering Mechanics
B.S. (*Royal Tech. Coll., Copenhagen*) 1911
- Westhafer, Terrence Onas—Chemistry
A.B. (*Univ. of Oklahoma*) 1914
- Whisenand, James Wilbur—Animal Husbandry
B.S. (*Univ. of Nebraska*) 1914
- White, Leila Olive—Scholar in History
A.B. (*Rockford Coll.*) 1914
- Whitford, Robert Calvin—English
A.B. (*Coll. of the City of New York*) 1912
A.M. (*Columbia Univ.*) 1913
- Wichers, Edward—Inorganic Chemistry
A.B. (*Hope Coll.*) 1913
- Wildman, Ernest Atkins—Organic Chemistry
B.S. (*Earlham Coll.*) 1912
M.S., 1914
- Wiley, Neva Beryl—History
A.B. (*Illinois Woman's College*) 1910
- Williams, Arthur Edwards—Ceramics
B.S., 1910
- Williams, Kathryn—Scholar in Classics
A.B. (*Carthage Coll.*) 1914
- Williams, Roy Arlyn—Education
A.B. (*De Pauw Univ.*) 1912
- Nanking, China
- (SS) Lancaster, Wisconsin
- Bement
- Hamilton, Michigan
- Owensboro, Kentucky
- Urbana
- Hartford, Kentucky
- Appleton, Wisconsin
- Richmond, Kentucky
- River Forest
- Urbana
- (SS) Bahawalpore, India
- Shandon, Ohio
- (SS) Urbana
- Urbana
- SS De Kalb
- Urbana
- Bellaire, Ohio
- Mt. Pleasant, Michigan
- (SS) Urbana
- Joliet
- Oyster Bay, New York
- SS Prairie Creek, Indiana
- Fredell, Pennsylvania
- Pittsford, New York
- Champaign
- Church's Ferry, No. Dakota
- Philadelphia, Pennsylvania
- Copenhagen, Denmark
- Buffalo, Oklahoma
- Harvard, Nebraska
- Rockford
- New York City
- Zceland, Michigan
- Whittier, California
- La Place
- Urbana
- Ft. Stockton, Texas
- SS Bismarck

- Wilson, Lola Elsie—Latin
A.B. (*Hanover Coll.*) 1912
- Wilson, William Harold—Mathematics
A.B. (*Albion Coll.*) 1913
A.M., 1914
- Winkelmann, Herbert August—Scholar in Chemistry
B.S. (*North-Western Coll.*) 1914
- Winslow, Joseph Charles—Bacteriology
A.B. (*Univ. of Wisconsin*) 1914
- Wiseman, Esther Grace—Scholar in English
A.B. (*Shurtleff Coll.*) 1914
- Wollenhaupt, Walter Franz—Education
Ph.B. (*Iowa Wesleyan Univ.*) 1908
- Wright, Phillip Quincy—Fellow in Political Science
A.B. (*Lombard Coll.*) 1912
A.M., 1913
- Wright, Albert Byard—Political Science
B.S., A.M. (*Illinois Wesleyan Univ.*) 1907, 1910
A.M., 1914
- Wyatt, Frank Archibald—Fellow in Agronomy
B.S. (*Agr. Coll. of Utah*) 1910
M.S., 1913
- Yapp, William Wodin—Genetics
B.S., M.S., 1911, 1914
- Yoke, John Jonathan—Animal Husbandry
B.S., 1914
- Young, Esther—Scholar in Botany
A.B. (*Miami Univ.*) 1914
- Young, Everett Gillham—Fellow in Railway Engineering
B.S., 1913
- Young, Lewis Emanuel—Fellow in Economics
B.S. (*Pennsylvania State Coll.*) 1900
E.M. (*Iowa State Coll.*) 1904
- Young, Yungyen—Botany
B.S., A.B., M.S., 1913, 1914
- Zeis, Henry Charles—Mathematics
A.B., 1913
- Zimmerman, Robert Paul—German
A.B., 1913
- Zucker, Adolf Eduard—German
A.B., A.M., 1912, 1914
- Neoga*
- Champaign*
- Appleton, Minnesota*
- Omro, Wisconsin*
- Mound Valley, Kansas*
- SS *Villa Grove, Iowa*
- Galesburg*
- SS *Wenona*
- Wellsville, Utah*
- Urbana*
- Urbana*
- Indianapolis, Indiana*
- Denver, Colorado*
- Champaign*
- Nanziang, China*
- Champaign*
- Champaign*
- Ft. Wayne, Indiana*

UNDERGRADUATE AND PROFESSIONAL COLLEGES AND SCHOOLS IN URBANA

(Including the Colleges of Liberal Arts and Sciences, Engineering, Agriculture, and Law, the Library School, and the School of Music)

ABBREVIATIONS

Courses

A	Architecture	L	Law
AE	Architectural Engineering	LAS	General Liberal Arts and Sciences
Agr	Agriculture	Lb	Library Science
Bus	Business	Med	Medical Preparatory
CE	Civil Engineering	ME	Mechanical Engineering
Cer	Ceramics	MnE	Mining Engineering
CerE	Ceramic Engineering	MSE	Municipal and Sanitary Engineering
Ch	Chemistry	Mus	Music
ChE	Chemical Engineering	RCE	Railway Civil Engineering
EE	Electrical Engineering	REE	Railway Electrical Engineering
HSAgr	Household Science, Agriculture	RME	Railway Mechanical Engineering
HSLAS	Household Science, Liberal Arts and Sciences	SS	Summer Session

Credit

Name	Course	Hours*	Residence
Abbott, Edwin Irving	<i>Agr</i>		<i>Berwyn</i>
Abbott, Howard Green	<i>Agr</i>		<i>Morrison</i>
Abbott, Robert Edward	<i>LAS</i>		<i>Chicago</i>
Abney, M. D., A.B., 1912	<i>SS</i>	130	<i>Harrisburg</i>
Abraham, Effie Gale, A.B. (<i>Miami Univ.</i>) 1913	<i>Lb</i>		<i>Muncie, Indiana</i>
von Ach, Frank	<i>Bus</i>		<i>Davenport, Iowa</i>
Ackerson, Esther Mae	<i>HSLAS</i>	33	<i>Westfield, Indiana</i>
Ackert, Alice Nowell	<i>HSAgr</i>		<i>Dixon</i>
Adams, Allan Madison	<i>Agr</i>	32	<i>Urbana</i>
Adams, Ethel Irene	<i>Mus</i>		<i>Buffalo, Wyoming</i>
Adams, Joseph James	<i>Agr</i>	26	<i>Urbana</i>
Adams, Mary Olena	<i>LAS</i>		<i>Tipton, Missouri</i>
Adams, Pauline Hopkins	<i>LAS sp</i>	55	<i>Grand Rapids, Michigan</i>
Adelsberger, Bransford Louis	<i>Med</i>		<i>Waterloo</i>
Adler, Leon	<i>ChE</i>	48	<i>St. Louis, Missouri</i>
Agg, Sarah	<i>HSAgr (SS)</i>	36	<i>Urbana</i>
Agnew, Beulah Irene	<i>LAS</i>	31	<i>Villa Grove</i>
Ainsworth, Harry Francis	<i>Agr (SS)</i>	98½	<i>Greensburg, Indiana</i>
Ainsworth, Harry Gregory	<i>Agr</i>	126	<i>Mason City,</i>
Ainsworth, Joseph Homer	<i>Agr</i>		<i>Havana</i>
Ainsworth, Madeline Zelonica	<i>LAS</i>		<i>Chicago</i>
Ainsworth, William Howard	<i>Agr</i>		<i>Mason City</i>
Alband, Laura Anna	<i>HSLAS</i>	97	<i>Streator</i>
Albaugh, Hazen Lowell	<i>Bus</i>	32½	<i>Edmore, Michigan</i>
Albee, Chester Leon	<i>Agr</i>	31	<i>Chicago</i>
Albert, Harry Delbert	<i>L</i>	50	<i>Mansfield</i>
Albin, Harold Cornelius	<i>Agr</i>	104	<i>Washington, D. C.</i>
Albin, Wilma	<i>LAS</i>		<i>Chicago</i>
Albrecht, Daniel Arthur	<i>LAS (SS)</i>	64	<i>Champaign</i>
Albright, Joseph Clarence	<i>ME</i>	36	<i>Attica, Indiana</i>
Alcock, Warren Joseph	<i>ME</i>	4	<i>Chicago</i>
Alexander, Grace Elizabeth	<i>LAS</i>	102½	<i>Chicago</i>
Alexander, Hazel Johnson	<i>LAS sp</i>		<i>Indianapolis, Indiana</i>
Alexander, John Alva	<i>SS</i>	114½	<i>Mansfield</i>
Allais, Eugene	<i>LAS</i>	62	<i>Du Quoin</i>
Allan, Carlisle Visscher	<i>A</i>		<i>Omaha, Nebraska</i>
Allard, Hazel Bentley	<i>LAS</i>	33	<i>Quincy</i>
Allard, Maurine	<i>Mus</i>	26	<i>Quincy</i>
Allen, A. A.	<i>SS</i>		<i>Pesotum</i>
Allen, Alice Alexandria	<i>HSLAS</i>	94	<i>Urbana</i>
Allen, Ernest Victor	<i>MnE</i>	92½	<i>Pana</i>
Allen, Frank Oscar	<i>LAS (SS)</i>	70½	<i>Clinton</i>
Allen, George Albert	<i>LAS</i>		<i>Clinton</i>

*Computed October 1, 1914.

Allen, Harriett Horton	HSAgr	32	Delavan
Allen, Hester Ada	HSAgr	33	Delavan
Allen, Moffett Barrows	Agr		Harristown
Allen, Otho William	LAS	117	Clinton
Allen, Paul Glen	LAS	84	Chicago
Allen, Thomas Edward	SS		Ashley
Alley, William Edwin	SS	49	Champaign
Alling, Carlos A. K.	Bus		Chicago
Allison, Jay Malcolm	Bus	47½	Dezoners Grove
Allison, Ruth Elizabeth	LAS	75	Kirkland
Allison, Worth Arthur	Agr	85	Charleston
Allyn, Albert Merrell	AE (SS)	97½	Grants Pass, Oregon
Allyn, Hester Anne	HSLAS	32	Modesto
Almond, Harry Havens	LAS	38	Anderson, Indiana
Alt, Frank Henry, Jr.	Agr		Chicago
Alverson, Ruth Anelia	LAS		Urbana
Alverson, Verna May	SS	23	Urbana
Alvord, Genevieve Raymond	LAS	64	Urbana
Alwood, Clyde Gobel	Agr	30	Clinton
Alyea, Melvil Carlyle	Agr	97	Earlville
Amborn, Louise	LAS	65	Ft. Madison, Iowa
Ambroz, Ambrose Otto	LAS sp		Cedar Rapids, Iowa
Ambruster, John Rea	Agr	33	Chicago
Ames, Albert Gaidner	LAS		Riverside
Ames, Waldo Boynton	Bus	20	Oak Park
Amos, Douglas Jacques	Agr (SS)	65	Cairo
Amsbary, Paul Donald	A	68	Urbana
Anastassiades, Ernest	CE		Kirk-Kilisse, Turkey
Anderle, Emil Joseph, B.S., 1914	LAS	138	Chicago
Anderson, Benjamin Franklin	L	87	Charleston
Anderson, Carl Leonard	A		Hudson, Wisconsin
Anderson, Charles Patrick	Bus		Chicago
Anderson, Charles Wesley	Cer	33½	Dixon
Anderson, Clarence	EE		Taylorville
Anderson, Clarence Joseph	Bus	110½	Princeton
Anderson, Frank Andrew	Agr sp		Smithshire
Anderson, Irving	MSE	129	Galesburg
Anderson, Joshua Clayton	Agr (SS) sp	84½	Champaign
Anderson, Mrs. Myrtle Zeress	SS		Champaign
Anderson, Nita Jeannette	SS		Highland Park
Anderson, Olive Mytilda	HSAgr	30	Chicago
Anderson, Owen Huntington	ME	67	DeKalb
Anderson, Perry John	Bus		Urbana
Anderson, Roy B.	Agr		Winnebago
Anderson, Walker Whitcomb	A (SS)	114½	Holder
Anderson, William French	Agr	100½	Lake Forest
Anderson, William Wilson	Agr	60	Ohio
Andresen, Hans Henry Louis	A	110	Chicago
Andrews, Harry Lee	LAS(SS)	81	Washburn
Andrews, John Asa	Agr	99	Walnut
Andrews, Leonard Elmer	LAS		Oak Park
Andrews, Mary Alberta	LAS		Pana
Andrews, Nellie Eulalie	Agr sp	22	Hebron
Andrews, Robert Eugene	Agr	7	Evanston
Andrews, Roscoe Crum	LAS	67	Mattoon
Andrews, Thomas Carr	Bus		Woodstock
Angarola, Michael Louis	CE	112½	Chicago
Antenen, Harry George	A	2	Hamilton, Ohio
Anthony, Elizabeth Virginia	Mus	39	Elmhurst
Antoszewski, Robert Horatius	Agr		Glencoe
Appelgran, Clarence Oliver	Agr	34	Chicago
Apple, Russell Evans	Agr		Robinson
Applegate, Annie Mary, A.M., 1909	SS		Atlanta
Arber, Frederick Verne	LAS (SS)	69½	Brimfield
Arbuckle, Leon	Agr	60	Brocton
Archambeault, Evelain Elaine	SS	8	Peshtigo, Wisconsin
Archambeault, Geraldine Muriel	SS	30	Peshtigo, Wisconsin
Archer, Olin Wellington	LAS	31	Peoria
Archer, Robert Lin	SS	3	Prosperity, Pennsylvania
Arends, Annis Lillian	LAS	29	Champaign
Arends, Arthur	Agr	33	Melvin
Arias, Fenelon	CE (SS)	22½	Salta, Argentina
Armington, Clara Grace	Mus		Dixon
Armington, Dorothy Maude	LAS	102	Dixon
Armistead, Ambrose Harvey Lindsay	Agr sp	21	Norfolk, Virginia
Armour, Phillips F.	Bus	83	Rockford
Armstrong, Clifford Oakley	Med	64	Bloomington
Armstrong, Della Estelle	LAS	99	Newton, Iowa
Armstrong, Donald Alfonso	LAS		Metropolis
Armstrong, Elizabeth Emily	LAS		Champaign
Armstrong, Horace	Bus		River Forest
Armstrong, John Harold	Agr	33	Champaign
Armstrong, Lennox Francois	ME	109	River Forest

Armstrong, Paul Leo	LAS		River Forest
Armstrong, Walter Clark	Agr	107½	Chicago
Arnde, Paul, Jr.	Agr		Decatur
Arnold, Howard Shaver	Agr	25	Ottawa
Arthur, Mildred Sylvester	SS		Streator
Artz, Harry Belmont	EE		Augusta
Asai, Seiji	Bus sp	16	Kyoto, Japan
Aschermann, Vade Earl	EE	37	Lovington
Ashbeck, William Louis	AE	83	Chicago
Ashley, Laurin S.	SS	26½	Sibley
Ashman, Oscar Harold	AE	34	Elgin
Aston, Arthur	SS	8	Urbana
Atkins, Edward Laurence	Agr	116	Rock Falls
Atkinson, Donald Samuel Peabody	Bus		Champaign
Attebery, Hazel	Bus		Hillsboro
Attebery, Homer Franklin	Agr	62	Hillsboro
AuBuchon, Joseph Montgomery	EE		St. Louis, Missouri
Augustus, Lalah Marie	HS Agr	47	Champaign
Augustus, Ralph Edgar	Agr	81½	Champaign
Auld, Ernest Roland	Agr		Martinsville
Austin, Barton Slade, Jr.	Agr	103½	Woodstock
Austin, Harold Emery	ME	110	Chicago
Austin, Nola Gertrude	SS Sp	4½	Tallula
Auten, John Thompson	Agr	73½	White Hall
Avery, Guy Thomas	ME	35½	Three Rivers, Michigan
Avery, John Madison, A.B., 1914	SS		Johnston City
Axelson, Alice Grace	LAS	117	St. Louis, Missouri
Axline, Edward Springer	Bus	33½	Wenona
Ayres, Edward Burge	ME	34	Springfield
Ayres, Lester George	Bus	49	River Forest
Babbitt, Eleanor	LAS (SS)	29½	Chicago
Babcock, Basil Philip	ME (SS)	35	Chicago
Babcock, Dan	AE	37	Anderson, Indiana
Babcock, Frank Roy	Bus	34	Rockford
Babcock, Jennie May	HSLAS	65	Danville
Bacer, Holland Robert	CerE	116	Brantsville, New York
Bach, Bernice	LAS		Chicago
Bacon, Oliver	Agr		Harlan, Iowa
Bacon, Robert Hamilton	EE		Pasadena, California
Bade, Charles Henry	A	112	Lidgerwood, North Dakota
Badger, Carroll John	Agr		Alamo, Tennessee
Badger, Eunice Louise	LAS		Riverside
Baechler, Matilda May	HS Agr (SS)	42	Monterce
Baechtold, Elsie Louise, A.B. (Grinnell College) 1911	Lb	33	Talladega, Alabama
Baer, Paul Wendell	Agr		Oxford, Ohio
Bagott, Pauline J.	SS		Kimmunity
Bagusin, Alexis Matthew	Med (SS)	101	Quincy
Bahr, Mildred Greta	LAS		Ridgefarm
Bailey, Earl Willis	CE		Boody
Bailey, John Willard	A	135	Lovington
Bailey, La Force	A	102	St. Charles
Bailey, Linus McCowan	ME (SS)	37	Perru, Indiana
Bain, Wallace Bothwell	Agr	57	Martinsville, Indiana
Baird, Mont Kersey	SS	5	Indianapolis, Indiana
Baker, Alfred Michael Mark, Jr.	Agr	111½	St. Louis, Missouri
Baker, Erwin Frank	ME sp		Denver, Colorado
Baker, Fred Phelps	ChE		Denver, Colorado
Baker, Gerald Clifford	SS	68	Bement
Baker, Harry James	LAS	46	Worthington, Indiana
Baker, Joseph John	Agr		St. Louis, Missouri
Baker, Mrs. Lena, A.B. (Missouri Wesleyan Coll.) 1898	Mus		Urbana
Baker, Leon Joseph	AE		Ft. Wayne, Indiana
Baker, Russell Parks	Bus	86	La Fayette, Indiana
Baker, Walter Earl	Bus	72	Bement
Bakhsbi, Sarva Rupa	RCE	73½	Scinagar, India
Balbach, Nyle Jacob	Bus	26	Chenoa
Balderson, Ted Albert	AE	37	Wilber, Nebraska
Baldwin, Janet Christine	SS	89	Paris
Baldwin, Leo Starr	AE	146	Freeport
Baldwin, Margaret Helen	HSLAS	27	Ottawa
Balkema, Salome Rose	LAS (SS)	65	Chicago
Ball, Frederic Dunham	LAS		Clinton
Ball, George Waldo	REE (SS)	72½	Edison Park, Chicago
Ball, Mary Elsie	HSLAS	31	Rossville, Indiana
Ballinger, Emma Matilda	LAS	23	Upper Alton
Bamesberger, Velda Christena	LAS		Urbana
Ban, Seizo	MnE (SS)	28	Tokyo, Japan
Bandy, William Albert	SS	3	Westfield
Bane, Frank Milton	Agr	99	Pontiac
Bannister, John Howard	Agr		Kewanee

Barber, Franklin Brown	<i>Agr</i>		Gibson City
Barber, Harold William	<i>Agr</i>		La Salle
Barber, Hillis Elwyn	<i>Agr</i>		La Fox
Barber, John Kenneth	<i>LAS</i>	51	La Fox
Barber, Wilber Barrett	<i>EE</i>	4	Joliet
Barden, Harold Edward	<i>EE</i>	122	S. Pasadena, California
Bardwell, Anna Laura	<i>HSLAS</i>	83	Aurora
Barger, Leslie Vernon	<i>SS</i>		Danville
Barker, Byrl Abbott	<i>Agr</i>	103	Mazon
Barker, Edward Franklin	<i>ME (SS)</i>	77	Rock Island
Barker, William Clarke	<i>Bus</i>	31	Rock Island
Barkley, Rupert Randolph	<i>SS</i>		Hazel Dell
Barkman, Charles Pruden	<i>LAS (SS)</i>	113	Princeton
Barkman, Marcus Glazer	<i>LAS</i>		Princeton
Barkow, Emory Merrill	<i>Agr</i>		Chicago
Barkstrom, Edward Carl	<i>ME</i>	63	Chicago
Barler, Richard Condon	<i>Agr</i>	23	Chicago
Barlow, Ralph Linden	<i>L</i>	93	Urbana, Ohio
Barlow, Roland Wilcox	<i>Med</i>	7	Chicago
Barman, Somendra Chandra Deb	<i>Bus</i>	103	Bengal, India
Barnes, Allen Littler	<i>A</i>		Urbana
Barnes, Eleanor	<i>HSAgr</i>		River Forest
Barnes, Harold John	<i>A</i>	36	Joliet
Barnes, Lillian	<i>LAS</i>	23	River Forest
Barnes, Nelle	<i>LAS</i>	136	Urbana
Barnes, Otis Avery	<i>ChE</i>	74	Auburn
Barnes, Robert Olney	<i>LAS</i>	112	Chicago
Barnes, Russell Daniel	<i>AE</i>	75½	Taylorville
Barnes, Winifred	<i>Agr</i>		Kansas City, Missouri
Barnett, Clarence James	<i>Agr-sp</i>		Danville
Barnum, Richard Fyfe	<i>ME</i>	66	La Grange
Barreau, August Matthew	<i>AE</i>	112½	Chicago
Barringer, Edna	<i>LAS</i>	93	Coffeen
Barron, Alexander Fraser	<i>ME</i>	110	Chicago
Barrows, Helen Marie	<i>HSAgr</i>	36	Chicago
Barry, Jennis Eulalia	<i>LAS</i>		Champaign
Bartels, Nellie Flora	<i>LAS</i>	82	Edwardsville
Barth, Edward Fred	<i>Agr</i>	80½	Pana
Bartholow, James Summerfield	<i>LAS (SS)</i>	71	Mt. Vernon, New York
Bartleson, Agustus Chapman	<i>LAS</i>		Muskogee, Oklahoma
Bartley, John Solomon	<i>A</i>	72	Waterloo, Iowa
Barto, Harriet Thompson	<i>HSLAS</i>	66	Urbana
Barto, Margaret Murray	<i>HSLAS (SS)</i>	37	Urbana
Barton, Arthur Layton	<i>L</i>	8	Cambridge, Vermont
Bates, Charles William	<i>Bus</i>		Roodhouse
Batson, John Thaddeus	<i>ChE</i>		Marshall
Batthey, Bradford Reed	<i>Bus</i>	34	Tiskilwa
Bau, Ching-ling	<i>ME (SS)</i>	42½	Shanghai, China
Bauder, Lewis Augustus	<i>Agr</i>	30	Berwyn
Bauer, Elmer Ferdinand	<i>Agr</i>		St. Louis, Missouri
Beach, Frank Herman	<i>LAS</i>	66	Champaign
Beal, Walter Hubert	<i>Bus</i>	69	Moline
Beall, John Percival	<i>LAS (SS)</i>	111	Alton
Bean, Lillian Bertha	<i>LAS</i>	33	Urbana
Bear, Chester Randall	<i>Bus</i>	12	Ludlow
Beard, Ward Powers	<i>Agr (SS)</i>	105	Milledgeville
Beardsley, Henry Scovell	<i>Agr</i>	15½	Kansas City, Missouri
Beatty, Edward Corby Obert	<i>LAS</i>	66	Quincy
Beatty, Owen Chauncey	<i>Agr</i>		Urbana
Beaubien, Warren Platt	<i>AE</i>	76	Whiting, Indiana
Bebb, Edwin Adams	<i>Agr</i>	73	Chicago
Bebb, Forrest	<i>Agr</i>	70	Muskogee, Oklahoma
Beck, Martha Seima	<i>LAS</i>	93	Indianapolis, Indiana
Beck, Ruth Marie	<i>LAS</i>		Champaign
Beckemeyer, Harry John	<i>SS</i>	93	Beckemeyer
Beckemeyer, Mary Brown	<i>SS</i>	3½	Carlyle
Becker, Georgia	<i>Agr sp</i>		Bloomington
Becker, Harry Francis	<i>Agr sp</i>	33½	Knoxville
Becker, Lewis Michael	<i>ME</i>	79	Quincy
Becker, Paul	<i>ME</i>	37	Berwyn
Becker, Walter Henry	<i>Bus</i>	21	Chicago
Beeby, Ruth Alice	<i>SS</i>	38	Urbana
Beers, Otis Edward	<i>ME</i>	51	Elkhart, Indiana
Beggs, Alfonso Franklin	<i>Agr sp</i>		Dongola
Behel, Vernon Wilbur	<i>A</i>	47	Lake Bluff
Behel, Wesley Arthur	<i>EE</i>	36	Lake Bluff
Behr, Herbert Richard	<i>EE</i>	77	Chicago
Behrensmeyer, Helen	<i>LAS (SS)</i>	97½	Quincy
Beidelman, Jennings Clyde	<i>AE</i>		Naperville
Beifuss, Edwin Louis	<i>Agr</i>	95½	Chicago
Beilin, David Solomon	<i>Med</i>	27½	Wilmette
Beindorf, Paul Albert	<i>ME</i>	53	Litchfield
Bell, Emerson DeWitt	<i>EE (SS)</i>	112½	Arcola

Bell, Harrington Alexander	<i>Agr</i>		Oak Park
Bell, John Hasle	<i>CE</i>		Rushville
Bell, Kenneth Corwin	<i>Bus</i>	60	Robinson
Bell, Mary Aurelia	<i>LAS</i>	75	Carbondale
Bell, Neva Frances	<i>LAS</i>	23	Urbana
Bell, Norma Elizabeth	<i>LAS</i>	55	West York
Bell, William McFadden	<i>Agr</i>	79½	Bucara Vista, Pennsylvania
Belnap, Nuel Dinsmore, A.B., 1914	<i>L</i>	30	Washington, D. C.
Belshaw, Charles Franklin	<i>ME</i>	75	Rockford
Beltz, John Shafer	<i>EE</i>	74	Nickerson, Kansas
Bench, Stella Louise	<i>SS</i>	71	Galena
Benham, Norman Beach	<i>ChE</i>		Crothersville, Indiana
Benner, Arthur Jacob	<i>LAS</i>	103	Chicago
Benner, William Jacob	<i>LAS</i>	98	Chicago
Bennett, Arthur Edward	<i>A (SS)</i>	105	Chicago
Bennett, Basil	<i>Agr</i>		Kansas
Bennett, Emil Cline	<i>Agr</i>		Kansas
Bennett, Frank Luvern	<i>Agr (SS)</i>	70½	Cortland
Bennett, Hazel Marguerite	<i>HSLAS</i>	68	Washington
Bennett, William Harrison	<i>LAS</i>	116	Aurora
Benson, Arnold Siegfried	<i>Med</i>	65	Batavia
Benson, Arthur Edward	<i>A</i>		Chicago
Benson, Lois Pope	<i>SS</i>	72	Herrin
Benson, Mirrell Manning	<i>Bus</i>		Sterling
Benson, Susie True, A.B. (Missouri Wesleyan College) 1909	<i>Lb</i>	53	Urbana
Bentz, Clarence Louis	<i>AE</i>	83	Chicago
Berg, Ben Conrad	<i>LAS</i>	66	Crystal Lake
Berger, Cora	<i>LAS</i>		Davenport, Iowa
Berger, Irene Mae	<i>LAS</i>	33½	South Holland
Bergeson, Earnest Darwin	<i>Agr</i>		Earlville
Bergman, Frank	<i>CE</i>	112	Chicago
Berlin, Marie Valentine	<i>LAS</i>	74½	Chicago
Berline, Henry Lee	<i>Agr</i>	32½	White Hall
Berner, Louis Rolland	<i>Chem.</i>		Indianapolis, Indiana
Bernhardt, Josephine Elizabeth	<i>LAS</i>	63	Collinsville
Bernhardt, Pearl Anna Maria	<i>HSLAS</i>	95½	Collinsville
Berninger, Harriett Josephine	<i>LAS (SS)</i>	116	Lancaster
Berryman, Paul Ruytter	<i>Bus</i>		Downers Grove
Berwald, Charles Harry	<i>EE</i>	113	Dallas, Texas
Bess, Stanley John	<i>ME</i>	36	Rosemond
Best, Leon Henson	<i>ME</i>		Galva
Bevis, Albon Ledru	<i>Bus</i>	66½	St. Louis, Missouri
Beyer, Elizabeth Gunder	<i>HSLAS</i>	61	Urbana
Beyer, Vera	<i>LAS</i>	98	Urbana
Beyer, Verne Charles	<i>EE</i>		Princeton
Biddle, Helen Lucile	<i>HSLAS</i>		Kenton, Ohio
Bigel, William, Jr.	<i>Agr</i>	48	Chicago
Bigelow, Roy St. Lawrence	<i>REE</i>	34	Chicago
Bigler, Harry Edward	<i>Bus</i>	132½	Sigel
Bilderback, Byron	<i>Bus</i>	10	Champaign
Billman, Elliott	<i>L</i>	28	East St. Louis,
Binder, George Frederick	<i>Agr (SS)</i>	20½	Aurora
Bing, Bertha Helen	<i>LAS(SS)</i>	7	Urbana
Bingham, Arthur Barnes	<i>Agr</i>	96½	River Forest
Bingham, Charles Lathrop	<i>Bus sp</i>		River Forest
Birch, Robert Featherstone	<i>L</i>	19	Geneva
Birch, Stephen Meserve	<i>LAS</i>	25½	Danville
Birchard, John Wesley	<i>CerE</i>	29	Urbana
Birchard, Leola Mary	<i>HSAgr</i>		Urbana
Birdsell, Lloyd Burton	<i>Agr</i>		Sterling
Birks, John Milton	<i>Agr</i>		Cornland
Bishop, Jessie Elizabeth, A.B. (Smith Coll.) 1911	<i>Lb</i>		Evanston
Bissell, George Francis	<i>Cer</i>	99	Winnetka
Bjelland, Harold Gerhard	<i>Agr</i>		Leland
Black, Beryl A.	<i>SS</i>	4	Paris
Black, Howard Benjamin, B.S. (Baldwin Univ.) 1911	<i>SS</i>	7	Massillon, Ohio
Black, James Hamilton, Jr.	<i>Bus</i>		Terre Haute, Indiana
Black, Lois Frances	<i>LAS</i>	16	Oakland
Black, Robert Sommerville	<i>ME (SS)</i>	65	Mendota
Black, Ward Norris	<i>LAS</i>	8	Palestine
Blackall, Alfred Harris	<i>LAS(SS)</i>	8	Chicago
Blackstone, Abraham	<i>CE</i>		Chicago
Blackwell, Mary Lovey	<i>SS</i>		Urbana
Blackwell, Maude Gwendolyn	<i>LAS</i>	29	Atwood
Blackwell, Michael Joseph	<i>Agr sp (SS)</i>	43	Memphis, Tennessee
Blackwood, Leslie Winslow	<i>LAS</i>		Chicago
Blaine, Nelle Griffith	<i>SS</i>		Champaign
Blair, Edgar Theron	<i>Med</i>	24	Chandlerville

Blake, George Washington	CE	108	Maywood
Blake, Winifred	HSAgr	65	Maywood
Bleich, Selmar Anton	L sp	28	Alhambra
Bleuel, Marie Teresa	LAS	84	Chicago
Bleuer, Bernard Fred	Agr		Rock Island
Block, Edward Stevenson	Agr	68	Chicago
Block, Frieda Emma Alvina	Mus	34	Champaign
Block, Jesse LeRoy	Med	32	Portland, Oregon
Blohm, George Charles	LAS	25	Chicago
Bluhm, Harold John	ChE	38	Chicago
Boardman, Curtis Love	A		Hoopeston
Boardman, Vinson Runyan	Agr	31	Hoopeston
Bockemohle, Clinton L. A.	AE	104½	Ellinwood, Kansas
Bocock, Clyde Logan	Bus	20	Urbana
Boerner, Eugene Sonnenberg	Agr	23	Port Washington, Wisconsin
Boeschstein, Harold	LAS		Edwardsville
Boggers, Edith Elliot	HSAgr (SS)	102	Calin
Boggs, Hsi Fan	Bus	73	Shanghai, China
Boghossian, Melton Horsep	CE	19	Teheran, Persia
Bolen, Mabel Helen	LAS		Kansas City, Missouri
Boleyn, Charles John	Agr		Oak Park
Bolinger, Emerson Franklin	EE	77	New Holland
Bollard, Clemma Edith	LAS		Topeka, Kansas
Bolling, Robert Hill	Agr		Chicago
Bollinger, Emerson F.	SS		New Holland
Bollman, Minnie Joanna, A.B., 1910	Lb	51	Champaign
Bolster, Nicholas John	SS	47	Buenos Aires, Argentina
Boltenstern, Nellie	Mus sp		Cambridge
Boltenstern, William Samuel	Agr		Cambridge
Bolton, Ralph Waldo	LAS	7½	Aledo
Bolton, Wyman Jesse	ME		Nauvoo
Bon Durant, Walter Hontoon	Bus	24	South Bend, Indiana
Bone, Maurice Oberlin	Agr		Batavia
Bonner, Arthur Lee	ME		Champaign
Boone, Mrs. Bonnie E.	Mus sp		Champaign
Booth, Chancy LaMott	Agr	16½	Onarga
Booth, Earl Francis	SS	8	Kankakee
Booth, Lyman	Agr	31	Marshall
Booth, Norman Ralph	Agr		South Bend, Indiana
Booze, Macdonald Charles	Cer	102	Sullivan
Borah, Loco Wilson	LAS		Urbana
Borg, Elmer Ambrose	Agr		Stanton, Iowa
Borget, Clara Marie Eliza	LAS	96	Havana
Born, Charles Edgar	Agr		Cerro Gordo
Born, Katherine Lois	HSAgr	31	Champaign
Born, Ray	Bus	½	Champaign
Borromeo, Canuto Octavio	ME	125	Cebu, Cebu, P. I.
Borton, Cecil Walden	Bus	34	Urbana
Borucki, Louis Francis Felix	ME		Chicago
Boston, Paul McConley	Bus	30	Yorkville
Bosworth, Walter Henry	Bus		Elgin
Botteron, George Washington	SS		New Haven, Indiana
Bourassa, Cornelius Paul	LAS		Westfield, Massachusetts
Bourassa, Reginald Pierre	Agr	58	Westfield, Massachusetts
Bovard, Millard Forrest	LAS		Marselles
Bow, Loren Cushing	CerE	106	Detroit, Michigan
Bowen, John Almond	Agr sp	18	Neponset
Bower, Paul Eugene	Agr	33	Champaign
Bowersock, William Michael	EE		Maroa
Bowlus, Hazel W.	LAS (SS)	102	Urbana
Bowlus, Marie Louise	SS	102	Urbana
Bowman, Emily Maurine	LAS (SS)	7	Pierceton
Bowman, Leona Florence	SS	11½	Decatur
Bowman, Mabel	LAS	27	Dawville
Boyd, Landon Baird	AE	46	La Porte, Indiana
Boyd, Marion Cummings	LAS	53	Sheffield
Boye, Walter Fred	LAS	76	St. Peter
Boyer, Bess, A.B., 1913	LAS		Decatur, Indiana
Boyle, Esther Hortense	HSAgr		Hennepin
Boynton, Jay Farnham	Agr sp		Pleasant Plains
Bradley, Carol	HSAgr	69	Hume
Bradley, Daniel Clair	LAS		Champaign
Bradley, Frank	Agr sp	23	Prairie City
Bradley, Harold Smith	AE	117½	Rockford
Bradley, John Thomas	LAS	64	St. Louis, Missouri
Bradley, LeRoy	A	36	Ft. Wayne, Indiana
Bradley, Loyd	L	44	Mound City
Bradley, Lucile	LAS (SS)	55	Carbondale
Bradley, Lura Jane	HSAgr		Loda
Bradley, Marie Lynn	SS	8	Princeton
Brady, George Keyports	LAS		Brackettville, Texas
Brady, William Thomas	CerE	36	Anna
Brain, Oliver Galbraith	EE		Chicago

Bramlet, Homer David	SS	32	Eldorado
Bramlet, Hubert Butler	LAS	34	Eldorado
Branan, Harry Anthony	MSE	37	Mattoon
Branch, Leroy Parker	Agr		Evanston
Branch, Nelle Uree	Lb		Champaign
Branch, William Ralph	Agr	33	Champaign
Brandner, Emil George	LAS	73	Chicago
Brandon, Imogene	SS		Springfield
Brandon, Joseph Franklin	Agr	66	Washington, Indiana
Brandt, Richard Clarence	CE		Evanston
Brannon, George Raymond	Agr	189	Lowell, Indiana
Brashear, Roma, A.B. (Missouri State Univ.) 1907	Lb		Eolia, Mississippi
Bratten, Arno	SS	21	Marion
Braunsdorff, Reginald Kenneth	EE		Mattoon
Brazeau, Eugene Francis	Bus	26½	New York City
Brazelton, Calanthe Miriam	LAS		Greensburg, Indiana
Brede, Lothar Homer	Ch		Collinsville
Breece, Howard David	Ch (SS)	69	Mt. Vernon, Indiana
Breedis, John	EE sp		Champaign
Breese, Carl Shipman	LAS	63	Manhattan, Kansas
Breitstadt, Emma Matilda	LAS	51	Quincy
Breitstadt, Hulda Charlotte	Agr	60	Quincy
Ereneman, Amos Lloyd	EE	74	Emporia, Kansas
Brentlinger, Ciel McArthur	Agr		Urbana
Brew, George Joseph	Med		Chicago
Brewer, Emerson Wilson	Agr		Rantoul
Brewster, Harold Spencer	HS Agr (SS)	32	Camp Point
Briggs, Flora Bernice	LAS		Champaign
Briggs, Ray Herbert	ME		Clinton, Indiana
Brigham, Erwin Risley	LAS	95	Glencoe
Bright, Leslie Orville	SS	6	Foosland
Brightfield, Myron Franklin	LAS	86	Belleville
Brinkerhoff, George Norman	ME		Springfield
Brinkerhoff, Verne William	Agr		Rock Island
Brinton, Helen	SS	5	Dixon
Briscoe, Lucile Sarah	Agr		Westfield
Brisendine, Ray George	LAS	63	Pekin
Bristow, George Washington	Agr	33	Metropolis
Britt, Charles Allen	LAS	25	Penfield
Britt, Raymond Lewis	Agr		Freeport
Britt, Thomas Madison	Agr		Wheeler, Texas
Brittin, William Allan, Jr.	L	28	Virden
Britton, Floyd Evanston	Med	60	Farina
Brobeck, Von Haller	Agr	56	Hoopeston
Brock, William Sanford	HSLAS	114½	Waynesburg, Pennsylvania
Brockmeier, Angelina Louise	CE	29	Freeport
Brodd, Lawrence Samuel	AE	96	Cambridge
Brodsky, Joseph Baar	CerE	106½	Chicago
Bromberg, Nathan	A		Chicago
Bromm, Alvin Carl	Bus	68	Evansville, Indiana
Bronson, Roger Beckwith	Agr		Chicago
Brook, Frederick Vail	Agr		Ardmore, Pennsylvania
Brooks, Charles Campbell	HSLAS	65	St. Louis, Missouri
Brooks, Ethel Isabel	LAS		Beecher City
Brooks, Eula Margaret	LAS	115	Chrisman
Brooks, Fannie Maria	LAS		Sauvemin
Brooks, Frances	EE	38½	Urbana
Brooks, Frederick Augustus	Agr	93½	Chrisman
Brooks, Oscar Franklin	Agr	69	Marion
Brooks, Raymond Harrison	EE	2	Urbana
Brooks, Roger	LAS	31	Chrisman
Brooks, Viola	ME (SS)	31	Guthrie
Brotherton, William Edgar	A	15	Tunbridge Wells, England
Brown, Albert Paul	LAS	73	Tiffin, Ohio
Brown, Albert Willard	LAS	50	Muskogee, Oklahoma
Brown, Allen Brookins	Mus sp	6	Urbana
Brown, Anna	Agr	69	Genoa
Brown, Bayard	Agr	24	Normal
Brown, Carter Pennell	Agr	55½	Greensburg, Indiana
Brown, Clair William	HSLAS	31	Geneseo
Brown, Dorothy Sargent	EE	115	St. Louis, Missouri
Brown, Elmer Alfred	ME	114	Urbana
Brown, Elmer Arthur	Agr	7	Elwood
Brown, Frank Spangler	Agr		Modesto
Brown, Harlow W	Agr (SS)	93	Chicago
Brown, Helen Dorsey	L	31	Urbana
Brown, James Fearon, A.B., 1913	Ch	102	Rock Falls
Brown, John Bernis	Bus	34	Tiskilwa
Brown, John Lawrence	ChE	31	Anderson, Indiana
Brown, John Lyman	Bus	66½	Urbana
Brown, Kenneth George	LAS		Delavan
Brown, Lewis Hallet	HS Agr		Butavia
Brown, Lisbeth			

Brown, Lloyd Warfield	<i>Agr</i>	102	Jacksonville
Brown, Pembroke Holcomb	<i>LAS</i>	100	Rockford
Brown, Ralph Powers	<i>CE</i>	73	Chicago
Brown, Robert Rea	<i>Bus</i>	70	Urbana
Brown, Roger Q	<i>SS</i>	8	Hardin, Missouri
Brown, Tom	<i>AE</i>	37	Chicago
Brown, Waldo Reinhart	<i>LAS</i>	109	Niles Center
Browne, William Harcourt	<i>Med</i>		Chicago
Brownfield, Georgia	<i>HSAgr</i>	31	Urbana
Brownfield, Lelah, A.B., 1910	<i>Bus</i>		Urbana
Browning, Thomas Samuel	<i>Cer(SS)</i>	40	Benton
Bruington, Earl Vivian	<i>Agr</i>	68	Monmouth
Bruner, Crane Simpson	<i>CE</i>	108½	Urbana
Bruns, Herman Edward	<i>Agr</i>		Chicago
Brunskill, Everett Robert	<i>ChE</i>	101	Pontiac
Brunskill, Eyelar William	<i>Agr</i>	33	Pontiac
Brunson, Hazel Evelyn	<i>Bus</i>	32	Chicago
Byra, Edward Gunning	<i>Agr</i>	17	Tolono
Brya, Frank Gunning	<i>Agr sp</i>		Champaign
Bryant, Louis Ralph	<i>Agr</i>		Princeton
Bryant, Robert Alfred	<i>LAS</i>		La Grange
Buchanan, Kenneth	<i>A</i>	35	Hillshoro, Ohio
Buchanan, Richard Bell	<i>Agr</i>		Oklahoma City, Okla
Buchanan, Roy Irving	<i>Agr (SS)</i>	151	St. Francisville
Buchanan, Victor Clarence	<i>Agr</i>		Lawrenceville
Buchen, Helen Louise	<i>LAS</i>	29	Montello, Wisconsin
Bucher, Ermane Gaylord	<i>Cer</i>	103	Pontiac
Buck, Harold Philbrich	<i>A</i>		Chicago
Buckler, Carl William	<i>LAS(SS)</i>	104	Metcalf
Buckler, Helen Irene	<i>Mus (SS)</i>		Champaign
Buckler, Joseph Bruce	<i>SS</i>	17	Metcalf
Buckner, Orello Simmons	<i>Cer</i>	70	Newark, New York
Buell, Charles Clinton	<i>LAS (SS)</i>	22	Highland Park
Buell, Temple Hoyme	<i>A (SS)</i>	77	Highland Park
Buenger, Katherine Margaret	<i>HSLAS (SS)</i>	93	Granite City
Buerkin, Julius Allan	<i>AE</i>	93	Quincy
Buhai, Abraham Samuel	<i>CerE (SS)</i>	73	Chicago
Bull, Maude Emily	<i>HSAgr</i>	99	Union Grove
Bull, Willard Edwin	<i>EE</i>		Elgin
Bumann, Albert Theodore	<i>ChE</i>		Litchfield
Bumgarner, Ruth Subina	<i>LAS</i>	65	McNabb
Bunting, Loyd Daniel	<i>LAS</i>	66	Ellery
Burch, Margaret Bruce	<i>HSLAS</i>		Lockport
Burd, Robert Holdren	<i>Agr</i>		St. Louis, Missouri
Burgan, Laverne	<i>HSLAS</i>	61	Ridgefarm
Burger, Albert Harold	<i>Agr</i>	34	Elgin
Burgess, Carrie Vesta	<i>LAS</i>	53	Dundee
Burgess, Malcolm Herbert	<i>Agr</i>		Canton
Burgess, Oscar William	<i>LAS</i>		Fairfield
Burgett, Charles Culbertson	<i>Bus</i>		Newman
Burgoon, David Warner	<i>EE</i>	74	East St. Louis
Burgston, Clyde Harold	<i>Agr</i>	30½	Moline
Burke, William Fogarty	<i>Agr</i>		Lincoln
Burkhart, Paul Henry	<i>EE</i>	75	Henry
Burns, Clifford Clare	<i>Agr</i>	59	East Dubuque
Burns, Owen McIntosh	<i>LAS</i>	64	Danville
Burnside, Karl Ackerman	<i>AE</i>	5	Orleans, Iowa
Burrell, Beulah	<i>LAS</i>	29	Effingham
Burrell, Thomas Henry	<i>AE</i>	76	Albion
Burroughs, Wilbur Gordon	<i>SS</i>	141	Edwardsville
Burt, Lauren Dayton	<i>Bus</i>	13	Savoy
Burnett, Reid Albert	<i>EE</i>	71½	St. Louis, Missouri
Burton, Nina Pearl	<i>HSLAS</i>		Chicago
Burton, Robert Alson, Jr.	<i>LAS (SS)</i>	26½	Chicago
Burwash, Grace Sarah	<i>LAS</i>		Champaign
Burwash, Lois Irene, A.M., 1907	<i>SS</i>		Champaign
Burwash, Louis Stephen	<i>Agr</i>	33	Champaign
Burwash, Mary Gladys, A.B., 1913	<i>Lb</i>		Champaign
Burwash, Ralph Samuel	<i>ME</i>	69½	Champaign
Busby, Beulah	<i>Mus</i>		Spartan
Bush, Alexander	<i>Ch</i>		Glencoe
Bush, Frank Avery	<i>Bus</i>	95	Peoria
Bush, Kenneth Burman	<i>CE</i>	87	Quincy
Bushnell, Ruth Charlotte	<i>SS</i>		Waukegan
Butler, Allen Gilman	<i>EE</i>		Peoria
Butler, Charles Henry	<i>LAS</i>	37	Sullivan
Butler, George Howland	<i>CE</i>	106	Chicago
Butler, Mary	<i>HSAgr</i>	48	Cairo
Butler, Philip Marble	<i>Agr</i>		St. Louis, Missouri
Butler, Walter Carter	<i>Agr</i>		Chicago
Butterfield, Francis Eugene	<i>EE</i>	37	Wilmington
Butzer, Byrdie Blye	<i>HSLAS</i>	100	Hillsdale
Butzer, Goldia Grace	<i>LAS</i>	100	Hillsdale

Butzer, Verna Viola	HSLAS	107	Hillsdale
Butzow, Bertha Henrietta	SS	8	Watseka
Buzzard, Guy Ashton	SS	8	Bloomington
Bye, Herbert William	L	61	Chicago
Byers, Hale Nicoles	LAS	28	Garrett, Indiana
Byrne, Rose Helen	LAS		Chicago
Cadisch, Gordon Francis	Agr	33	Cleveland, Ohio
Cadle, Chester Junius	Bus	54	Charleston
Cadle, Hubert Atwater	ME	66	Westfield, Massachusetts
Cady, Lawrence Charles	ME		Kewanee
Caldwell, Lloyd Raymond	Agr	105	Neoga
Caldwell, Ruth Marie	LAS	34	Milford
Caldwell, Walter Randolph	LAS		Fairfield
Calhoun, Preston Browne	Agr	29	Glencoe
Calkin, Charlie James	ME		Crescent City
Cameron, Charles Conrad, Jr.	Bus		Wilmette
Cameron, Sarah Hester	SS	3	Lincoln
Campbell, Arabel Beryl	SS	63	Valparaiso, Indiana
Campbell, Charles Warren	MnE	36	Coal City
Campbell, Chester Morgan	Ch		Elgin
Campbell, David Joseph	Agr	85	Urbana
Campbell, Duncan McEvoy	CE	603	Chicago
Campbell, Ethelred Erasmus	ChE sp(SS)	8	St. Elizabeth, Jamaica
Campbell, Florence Maud	LAS	65	Tolono
Campbell, Florence Merlee	HSLAS	39	Carmi
Campbell, Francis Marion	Agr		Ursa
Campbell, Jack D	Med		Edwardsville
Campbell, Marshall	Bus		Chicago
Campbell, Marvine Margaret	LAS		Doniphan, Missouri
Campbell, Mason Herbert	Agr	334	Elgin
Campbell, William Franklin	Agr	32	Urbana
Canaday, Lora Alice	LAS (SS)	96	Winchester, Indiana
Canaday, Miles Edwards	Agr	24	Chicago
Canine, Ione	SS	64	Sheldon
Cannon, Tyrone Murphy	ME	354	Rapatee
Canter, Mrs. Edna Maloy	LAS		Champaign
Capnegro, Sebastian	EE	6	Chicago
Carbaugh, Philip Ward	LAS		Rockford
Cargill, Frederick Chauncy	Agr	29	Mason City
Carley, Paul Sterling	Med	243	Champaign
Carlsen, Arnold Wilmore	AE (SS)	111	Chicago
Carlson, Ansgar Lilius	Agr	32	Batavia
Carlson, Carrie Esther	LAS	67	Chicago
Carlson, Harry Leonard	Agr	34	La Salle
Carlson, Lee Russel	Bus (SS)	73	Champaign
Carman, Florence	HSLAS		Claytonville
Carney, Mary Vance	SS	137	Marseilles
Carney, Oscar Lyon	CE		Marseilles
Carpenter, Charles Kneeland	A	106	Faribault, Minnesota
Carpenter, Thomas Earle	Bus	50	Keokuk, Iowa
Carr, Kenneth Wright	AE		Oak Park
Carr, Vernon Wesley	Bus	36	Denison, Iowa
Carrier, Earle Wesley	CE		Chicago
Carrithers, Glenn Wilson	Agr	30	Toluca
Carrithers, Henry Havens	Agr		Hudson
Carroll, Daniel Bernard	LAS (SS)	80	Pittsfield
Carroll, Franklin Otis	REE	71	Jerseyville
Carroll, James Bernard	A (SS) sp	32	Bradford
Carson, Natalia Margaretta	LAS	29	Chicago
Carter, Alice	HSLAS	100	Evanston
Carter, Floyd	Agr		Clinton
Carter, John Calvin	SS	7	Cobden
Carter, Lucile	HS Agr	128	Plainfield, Indiana
Carter, Walter McKinley	Bus	32	Fort Wayne, Indiana
Carter, William Stokely	Med	29	Trenton
Cary, Clarence Edward	Agr		Elgin
Cary, Malcolm Combs	ME		Oak Park
Casey, Dawn Reber	HSLAS		St. Louis, Mo.
Casey, Isabel	SS	21	Pana
Casner, Sidney, A.B., 1914	L	30	Calgary, Canada
Casserly, Joseph Bernard	Agr	934	Champaign
Castle, Richard Lloyd	Bus (SS)	21	Urbana
Castle, Russell D V	Bus (SS)	564	Urbana
Castleberry, Georgia	HS Agr		McCune, Kansas
Castro, Julio Melchor	Agr	454	Cardenas, Cuba
Cattell, Fred Ray	Bus	28	Salem
Cauble, Charles Allan	Bus		Champaign
Cavette, Francis Erle	Bus	31	Lacon
Cecil, Lawrence Keith	Bus		Champaign
Cessna, Robert	Agr		Danville
Chabot, Kathleen Martin	HSLAS	31	Kankakee
Chaiken, Edith	LAS	36	Chicago
Chalcraft, Delos Maurice	Agr		Albion

Chalcraft, Lloyd Walton	<i>Agr</i> (SS)	41	Albion
Chamberlain, Richard Harris	<i>Bus</i>	2	Peru, Indiana
Chambers, Roy Ellsworth	<i>ChE</i>		Chenoa
Chambers, William Harold	<i>Agr</i>	102	Evanston
Champlin, Ellis Howard	<i>SS</i>	8	Friendship, New York
Champlin, Grace Elizabeth	<i>HSAgr</i>	64	Chicago
Chan, Tingit Harry	<i>Agr</i>	114½	San Francisco, California
Chan, Yu Chang	<i>Ch</i>		Kirin, China
Chan, Ye Young	<i>LAS</i>		Shin Ning, China
Chancellor, Catherine	<i>LAS</i>		Stockland
Chand, Hari	<i>EE</i>	109	Partanwali, India
Chandler, Edward Charles	<i>LAS</i>		Flora
Chandler, Leslie George	<i>Ch</i>		Hinsdale
Chang, Tien Tsai	<i>Agr</i>	71	Canton, China
Chang, Tze-Li	<i>RCE</i> (SS)	39	Changsha, China
Chapman, Edward Neal	<i>ChE</i>	99	Chicago
Chapman, Ralph Dwyer Clinton	<i>Bus</i>	103	Vienna
Chartrand, John Baptist	<i>EE</i> (SS)	107	East St. Louis
Chase, John Albion	<i>CerE</i> (SS)	63½	Urbana
Chatten, Carney Edward	<i>SS</i>	105	Flora
Chatterton, John Lanphier	<i>LAS</i>	41	Springfield
Checkley, Joseph Harvey, B.S., 1913	<i>LAS</i>	136	Urbana
Chen, Jung-ting	<i>Agr</i>	77	Washington, D. C.
Chen, Lang Suing	<i>Bus</i> (SS)	81½	Peking, China
Chen, Queh King	<i>LAS</i>	33	Sonjee City, China
Cheney, Mrs. Martha Dorsey	<i>Agr sp</i>		Louisville, Kentucky
Cheng, Yun Tin	<i>Bus</i>	37	Hong Kong, China
Cherry, Oscar Allen	<i>Ch</i>		Pawnee
Chesley, Alice Crawford	<i>LAS</i>		Urbana
Cheung, Sui Kaan	<i>Ch</i>		Canton, China
Chew, Dorothy	<i>HSLAS</i>	88	Pueblo, Colorado
Childs, James Bennett	<i>LAS</i>		Shohomier
Chiles, Howard Marion	<i>ChE</i>	53½	Carlinville
Chittenden, Robert Mearle	<i>CerE</i>	36	Brookfield, Missouri
Choisser, Ferne	<i>LAS</i>		Benton
Choy, Bung Chen	<i>CE</i>		Honolulu, Hawaii
Christ, George Phillip	<i>ChE</i>		Quincy
Christen, Lester Howard	<i>AE</i>	37	Elgin
Christie, James	<i>Med</i>	7	Rantoul
Christopher, Arthur Bailey	<i>Cer</i> (SS)	38	Canton
Christy, Glen	<i>Mus</i> (SS)	125	Harrisburg
Christy, Grace	<i>HSAgr</i>		Urbana
Chubbuck, Judson Elson	<i>EE</i>	56	Gibson City
Church, Leroy	<i>EE</i>	32	West Chicago
Churchill, Fred Weaver	<i>Agr</i>		Fairbury
Churton, Florence Helen	<i>HSAgr</i>	53	Clinton, New York
Chvatal, Ray James	<i>Cer</i>	30	Chicago
Cierpik, Casimir Stanley	<i>EE</i>		Chicago
Cieslik, Edmund	<i>CE</i>	77	Chicago
Cinnamon, Floyd Franklin	<i>EE</i>		Crete
Citizen, Carl Christopher	<i>LAS</i>	32	Danville
Civretto, Alfred John	<i>EE</i>		Lead, South Dakota
Claar, Elmer Allen	<i>LAS</i>	101	East Moline
Clamitz, Arthur Isadore	<i>LAS</i>	17½	Chicago
Clapp, Harland Taylor	<i>Agr</i>		Mentor, Ohio
Clarahan, Charles Henry	<i>CE</i>		Oak Park
Clarida, Troy Wayne	<i>Agr</i>	33	Marion
Clark, Albert LeRoy	<i>Agr</i>		Chicago
Clark, Bayard Hand	<i>Agr</i>	91½	De Kalb
Clark, Charles M	<i>RME</i>	37	West Chicago
Clark, George	<i>Agr</i>	64	Carthage
Clark, Harold Ames	<i>Agr</i> (SS)	31	Baltimore, Maryland
Clark, Harold Edward	<i>Cer</i>	68	Sterling
Clark, James Glen	<i>Bus</i>		Moweaqua
Clark, James Holbert	<i>LAS</i>	10	Mattoon
Clark, James Russell	<i>A</i>	80	Urbana
Clark, John Gunn	<i>A</i>	16	Memphis, Tennessee
Clark, John M	<i>SS</i>	3	Urbana
Clark, Margaret	<i>Agr</i>		Peoria
Clark, Marshall Grant	<i>Agr</i>		Carthage
Clark, Reid William	<i>Agr</i>		Attica, Indiana
Clark, Van Ness	<i>Bus</i>		Dansville, New York
Clark, George Edward	<i>EE</i>	35	Noblesville, Indiana
Clarke, Helen Beulah	<i>LAS</i> (SS)	116½	Urbana
Clarkson, Albert Jay	<i>EE</i>	108	Champaign
Clausen, Andrew	<i>Bus</i>		Chicago
Clausen, Clara Alice	<i>LAS</i>	64	Secor
Clayberg, Dorothea Marion	<i>A</i>	69	Oak Park
Clayton, Harry Leslie	<i>Agr</i>	35½	Kempton
Clegg, Carl	<i>ME</i>		Chandlerville
Clem, Leona	<i>LAS</i>		Casey
Clem, Orlie Martin	<i>LAS</i>		Benton

Clements, Esther	HS Agr (SS)	24	Champaign
Clements, Olen Robert, A.B., 1914	L	22	West Union
Cleve, Albert	CE	20	Chicago
Cleveland, Ralph Charles	Agr	26½	Rochelle
Cleveland, Warren Eddy	ME		Rockford
Cline, Gerald Morris	Med		Le Roy
Cline, Irl Reuben	CE	108	Medora
Cline, Myra Dianna	SS		Waverly
Clinebell, Howard John	Agr sp		Grafton
Close, Arthur Buckley	Agr		Chicago
Clover, Ira Newton	MSE (SS)	115½	Gardner
Cloyd, Louis Samuel	Bus		St. Louis, Missouri
Clyman, David	AE	107	Chicago
Cobb, Ernest Williams	ME	70	Chicago
Cobley, Howard William	Agr	24	Chicago
Coburn, Mildred Leann	LAS (SS)	101½	McLean
Cochran, Charles Blake	LAS	97½	Marion
Cochran, Russell William	LAS	26	Champaign
Cochrane, Elvis Elroy	SS	6½	Herman, California
Cogdall, Harry Frank	Agr	102	Chicago
Cohen, Carl	Med		Atlanta
Cohen, Isadore Maurice	AE	29	Chicago
Cohen, Julius	LAS	30	St. Louis, Missouri
Cohn, Louis Allen	Agr		Chicago
Coile, Sam Henry	A	37	Knoxville, Tennessee
Colbert, Harold Leland	SS	21½	Washington, Indiana
Colbert, James Rubin, A.B., 1914	L	23	Fairfield
Colby, Paul Whiting	A		Sioux City, Iowa
Colcord, Frank Maynard	Agr	120	Greenville
Coleman, Henry Clay, Jr.	ME	64	Greenville
Coleman, Oren	SS	33½	Carterville
Coleman, Paul Wayne	Agr	95	Ipava
Coley, Glenn	ChE	68	Pittsfield
Collier, Ethel Alice	LAS	29	Union Grove, Wisconsin
Collins, Campbell Stephen	Agr		Peoria
Collins, Helen Beatrice	HSLAS	10	Gilman
Collins, Irvin Bliss	SS	8	Potomac
Collins, Lester Edwards	Agr		Greensfield
Collins, Lucile Milhan	HS Agr		Vicksburg, Michigan
Collom, Mary Elizabeth	HSLAS	103	Pittsburgh, Pennsylvania
Colman, Ruth Phoebe	SS	7½	West Chicago
Colnon, Aaron James	CE	3	Ridgway
Colnon, John Thomas	CE		Ridgway
Colson, Etta M.	SS		Urbana
Colson, Harold Edward	Agr	105½	St. Charles
Colson, Robert J.	LAS		St. Charles
Colton, Edwin Thome	MSE	34	Kansas City, Missouri
Colton, Russell Smith	MSE	75	Kansas City, Missouri
Comer, Helen Louise	SS	7	Charleston
Compton, Donald Elliott	A		Tonah, Wisconsin
Comstock, Daniel Franklin	Bus	106	Evanston
Comstock, Ralph Wrigley	Bus	36	Monmouth
Conant, Lewis Jasper	Bus		Kinmundy
Conat, Mabel Louise, A.B. (Univ. of Michigan) 1909	Lb	58	Detroit, Michigan
Condit, Irene Viola	SS	24	Champaign
Conger, Almon Mortimer	ME		Elgin
Congleton, Frank Harold	Agr		Urbana
Confrey, Joseph Burton	SS	7	La Salle
Conklin, Bristol	Med	33	Earlville
Conklin, Helen Naomi	HSLAS		Roscoe
Conklin, Paul Stanley	ME	75	Roscoe
Conley, David Oris	Med	66	Streator
Conley, Ellen Gertrude	SS		Arcola
Connell, David Evans	CE		Chicago
Connor, John Hal	LAS		Newton
Conover, James Theodore	EE		Bradford
Conrad, Orien Ray	SS	31½	Vandalia
Consoer, George Otto	CE	43	Oak Park
Cook, Mrs. Emola Miller	SS		Penfield
Cook, Eugene	CE	54	Odin
Cook, Harriet Irene	LAS	32	Des Plaines
Cook, John Manchester	LAS		Chicago
Cook, Thomas Lee, A.B., 1905	SS		Mt. Pulaski
Coolcy, Roy Claiborne	Agr	33	Clinton
Coolidge, Richard Newell	CE	75	Lead, South Dakota
Coolidge, Robert Blake	Agr		East Cleveland, Ohio
Coolidge, William Francis	Agr		Bloomington
Cooling, Kenneth George	Bus		Rockford
Cooley, Elmer Burt	Agr	12½	Danville
Cools, Gabriel Victor	LAS		Arcon, Panama
Cooper, Charles Edward	Agr	66	Carlisle, Indiana
Cooper, David William	EE	70	Astoria

Cooper, Edward Alden	LAS(SS)	99	La Grange
Cooper, Henry Noble, Jr.	Agr	5	Chicago
Cooper, Kenneth Lupton	CE	102½	Chicago
Cope, Lorin Vaughan	Agr	28	Tonli
Copenhaver, Robert George	Agr	32	Polo
Copley, Beatrice Virginia	LAS	106	Joliet
Copper, Robert Elmer	Agr	31½	San Jose
Corbin, Ruth Ione	LAS		Sullivan
Corbley, Lynn	L	61	Paxton
Cordell, Eula Ethelyn	LAS	88	Macomb
Cordell, Ralph Vail	SS	14	Galesburg
Cordell, Vail	SS	120½	Macomb
Corke, Harold Winfred	Bus	35	Evanston
Corley, Seymour	CE	108	Decatur
Cornell, Donald Sidney	ME	86	Western Springs
Corper, Philip	Bus		Chicago
Corrie, Lester Linn	Agr		St. Francisville
Corrie, Wendell Bliss	Agr		St. Francisville
Corzine, Bruce Herbert	LAS	68	Charleston
Corzine, Clorah Eileen	SS	8½	Jonesboro
Corzine, Dale Clair	Agr	31	Assumption
Cossart, Estella Anna	SS		Chicago Heights
Cost, James Nicks	ME		River Forest
Cotta, Homer Willis	Agr		Rockford
Cotta, Ralph Leslie	Agr		Rockford
Cottingham, Nora	LAS	108½	Fairbury
Cottingham, Paul	EE		Danville
Coultas, Charles Rufus	Agr (SS)	42	Virgen
Coultas, Wilson James	Agr sp		Winchester
Coulter, Isaac Harry	Agr		Alton
Countryman, Irving Byron	Bus	32	Dixon
Courtney, George Frederick	LAS		Urbana
Couto, Licinio da Silva	EE	32	Rio de Janeiro, Brazil
Covey, John Ellsworth	Agr	66½	Bloomington
Cowell, Roland Adlemar	Bus		Lawrence, Kansas
Cowgill, Clinton Harriman	A	86	Topeka, Kansas
Cox, Clare Francis	SS	8	Vandalia
Cox, Henry Ray	Agr	33	St. Louis, Missouri
Coyle, Cassius Marcellus	Bus	6½	Gridley
Craft, John Countryman	Agr	5	Rochelle
Craig, Hazel Iona	Mus		Champaign
Craig, Helen Elizabeth	LAS		Hindsboro
Craigmile, Jeannette Elizabeth	LAS sp		La Grange
Craigmile, Mary Agnes	LAS (SS)	41½	Rantoul
Craigmile, Mary Delight	LAS	5	La Grange
Craigmile, Robert James	EE	38	Knox, Indiana
Crain, Chester McElfresh	Bus (SS)	12½	Urbana
Crane, Dudley Winthrop	Agr	66	Montclair, New Jersey
Cravens, Thomas Carl	Agr	61	Bloomfield, Indiana
Crawford, Chalmers Woodruff	Agr	106	Pontiac
Crawford, Helen Lucile	LAS	98	Urbana
Crawford, James Louis	CerE	29	Macomb
Crawford, Louis Noiré	A	57	West Lafayette, Indiana
Crawford, Ruth Marguerite	HSLAS	31	Urbana
Crawford, William Kinney	Agr	14	Pinckneyville
Crawford, Woodruff Lynden	Med	27	Pontiac
Crebs, John Powell	Agr (SS)	70	Carmi
Creighton, David Edward	Agr		Phoenix, Arizona
Creighton, Edward Woodin	Agr (SS)	105½	Fairfield
Creighton, Mary Elizabeth	LAS	49½	Phoenix, Arizona
Cress, Eldred Everett	AE		Carlinville
Cressey, Lucretia	LAS	97	Mattoon
Crickenberger, Lawrence Henkel	Agr sp		New Market, Virginia
Criley, Harlan Russell	AE		Champaign
Crismore, Joseph Collins	ME		Berwyn
Criss, Edward	Agr (SS)	108	Pittsfield
Croak, John Elmer	LAS(SS)	15½	Decatur
Crofts, Carson	Bus	31	La Grange
Croll, Hilda Marion	HSLAS	66	Beardstown
Crombie, Robert John	LAS	24	Peoria
Crosby, Henry Fay	Agr		Detroit, Michigan
Crosiar, Arthur Ogan	Agr		Utica
Cross, George Arthur	Agr	63	Polo
Cross, Mary Ann	LAS		Roachdale, Indiana
Crowley, Lloyd Isaac	CE		Newton
Cruchaga, Enrique Felix	MnE		Santiago, Chile
Crutcher, Ann Francis	HSLAS		Springfield, Missouri
Crutcher, Walter Louis	EE(SS)	95½	Springfield, Missouri
Crutchfield, William	A(SS)	100	Chattanooga, Tennessee
Cryder, John Henry	Agr	34	Plainfield
Cryder, Mary Edna	LAS	32	Plainfield
Cullinane, George Madill	Bus	38	St. Louis, Missouri
Culmer, Bruce Nutter	EE (SS)	61½	Martinsville, Indiana

Culp, John Dewitt	CE	88	La Grange, Indiana
Culter, Mrs. Lucy Jane	SS		Urbana
Cumfer, Donald Alonzo	ME		Chicago
Cummings, Harold Lane	Bus	97	Clinton
Cummins, Wesley Erett	L	59	Carbondale
Cunat, Miles Joseph	Agr		Chicago
Cunningham, Opal Claree	LAS	28	Urbana
Cunningham, Sterling Ross	L		Bismarck
Curl, Charley Edmund	ME	75	Paris
Currie, Nennie	LAS (SS)	73	Loda
Currier, Donald Eugene	Agr	91	Aurora
Curry, James Henry	AE (SS)	109	Marissa
Curtis, Burton Tuttle	Agr (SS)	57½	Decatur
Curtis, Hazel Birdelle	HS Agr	16	Woodland
Curtis, Miriam Austin	HSLAS		St. Louis, Missouri
Curtis, Smith	EE		Albion
Curtis, William	Med		Chicago
Curtiss, George	Agr	70	Stockton
Curtiss, Ralph Edwin	Agr	25	Marengo
Cuskaden, Major	Agr		Arcola
Cuthbert, Dorothy Lucile	LAS	99	Gilsun, New Hampshire
Cuthbertson, George Sinclair	Bus		Oak Park
Cylkowski, Vincent Dominic	CE (SS)	104	Chicago
da Costa, Manuel Ferreira	EE	73	Cortiba, Brazil
Dadant, Harriette Gabriel	HSLAS	33	Hamilton
Dahlberg, Truman	ChE		Chicago
Dahlin, Edna	HS Agr		Geneva
Dailey, Arthur Aloysius	ME	8	New York City
Dale, Fred Stinson	Agr		Mt. Vernon
Dale, John Herman	Agr	31½	Mt. Vernon
Dallach, Gertrude Blanche	SS		Galesburg
Dallenbach, Maybell May	HS Agr	32	Champaign
Daly, Ewing Porter	ME	37	Ottawa
Daly, Geraldine	LAS	8	Joliet
Daly, Helen	LAS	39	Monmouth
Dammers, John William	LAS (SS)	88	Chicago
Dappert, Anselmo	CE		Taylorville
Darby, Harry, Jr.	ME	33½	Kansas City, Kansas
Darmstatter, Helen Olive	HS Agr		New Athens
Darrell, George Charles	AE	37	Chicago
Darsett, Mary Elva	HS Agr		Augusta
Dauberman, Margaret Lucile	LAS (SS)	95	Mansfield
Daugherty, Anna Elizabeth	LAS	117	Urbana
Daugherty, Robert Hughes	Agr		Peoria
Davidson, Blaine Thomas	L sp	9	Urbana
Davidson, Gaylord Stillman	Bus		Springfield
Davidson, Lola Margaret	HSLAS	40½	Crawfordsville, Indiana
Davidson, Mary Catherine	HSLAS		Crawfordsville, Indiana
Davidson, Scott McKinley	Med		Salem
Davis, Mrs. Adelia	Agr sp		Galesburg
Davis, Clara Elizabeth	Mus	69	Urbana
Davis, Clare Rudolph	LAS sp		Donnellson
Davis, Earl Thomas	Agr	37	Chicago
Davis, Elmer Leon	Bus sp		Kankakee
Davis, Eugene John	Bus	17½	Chicago
Davis, Frederick Abram	Agr	33	Cherry Valley
Davis, George Robert	EE	28	Mt. Sterling
Davis, Gertrude Curtis, A.B., 1910	HSLAS		Holton, Kansas
Davis, Helen	LAS		Los Angeles, California
Davis, Helen Powers	HSLAS	101	Holton, Kansas
Davis, Harry Roscoe	AE	50½	Anna
Davis, Leonard Hoadley	Agr	30½	Huron, South Dakota
Davis, Leonard Louis	CE	43	Freeport
Davis, Martha Laurafred	LAS		Carbondale
Davis, Melvin Earl	AE	3	Chicago
Davis, Milton Russell	Agr	32	La Grange
Davis, Oliver Loundes	EE		Chicago
Davis, Paul Newhall	Agr	97	Arlington Heights
Davis, Philip Frank	Agr	28	Windor Mills, Quebec
Davis, Raymond Ellis	CerE	29	Danville
Davis, Roberta Lee	SS	8	Champaign
Davis, Samuel Sylvester	Agr	111	Newport, Indiana
Davis, Thomas Whitman, B.S. (Miss. A. & M. Coll.) 1904	SS	5	Kosciusko, Mississippi
Davis, Veronica	Mus		Bondville
Davis, Ward Owen	Agr	8	Ramsey, Indiana
Davis, Zachary Stephen	AE		Chicago
Dawson, Helen Mamie	LAS	96	Morris
Dawson, Louis Edward	ChE	24	Springfield
Dawson, Owen Lafayette	Agr		Orland
Day, Curtiss LaQ	Bus	31	Gibson City
Day, Dorothy	LAS		Chicago
Day, Harry Warren	Agr	34	Shelbyville

Day, Milo Frank	SS	7	Weeping Water, Nebraska
Day, Vincent Stephen	ME	43	Springfield
Day, Walter Thomas	L sp	33	Springfield
Deahl, Neulon	Ch		Champaign
Deakman, Homer Ward	CE	108	Chicago
Deal, Edwin Jahn, B.S. (Univ. of Michigan) 1914	Agr		Detroit
Dean, Hazel, A.B. (Northwestern Univ.) 1913	Lb		Rolla, Missouri
Dean, Olive Gertrude	LAS (SS)	19	Harrisburg
Dean, Vaughn Waldow	Bus		Decatur
Deaver, Lister Alward	Cer	135	Bloomington
DeCamp, Joseph Edgar, Ph.D. (Univ. of Michigan) 1914	LAS sp		Batesville, Arkansas
Decker, Arthur Eli	SS	4½	Augusta
Decker, Benjamin Harrison	EE	109	Brasil, Indiana
Decker, Edna Mae	HS Agr	39	Chicago
Degen, Albert Gustav	AE	55	Kansas City, Missouri
Deiss, William Charles	EE (SS)	108½	Carlinville
DeLong, Charley Townsend	Agr sp	29	Foosland
DeLong, Willard Earl	Bus	41	Foosland
Dempsey, John Patrick	CE		Buffalo, New York
Dempster, Charles	ME	59	Chicago
Demuth, Jack Erwin	CE	108	St. Louis, Missouri
Deneweth, Amelia Elizabeth	Mus sp		Mt. Clemens, Michigan
Denick, Milo Frank	ME	37	Lockport
Denison, Irving Alson	Agr		Washington, D. C.
Denison, Sidney Alexander	SS	2½	Bridgeport
Dennis, Rose Carolyn	HSLAS	22	Glencoe
Dent, Richard Wilmer	ME		Urbana
Denz, Raymond Edward	LAS	70	Decatur
Derby, Harold Leslie	CE	71½	Kirksville, Missouri
Derby, Sylvester Randall	CE	108	Morgan Park
Deremiah, Charles Wesley	SS	½	St. Elmo
DeSwart, Clarence Gordon	EE	12½	Chicago
Detering, Oscar Casper	Bus	9½	St. Louis, Missouri
Detrick, Florence Jay	HS Agr		Sterling
Deuchler, Gustave Herman	AE		Aurora
Deveneau, George Adams, Ph.B. (Univ. of Chicago) 1912	Lb		Chicago
Devlin, John Lester	LAS(SS)	21	Chicago
Dewar, Matthew Barr	EE		Harrisburg
Dewey, Elmer Clarence	Bus	31	Rockford
DeWolfe, Lucy Leonora	LAS	60	Assumption
Dexter, Grace Ella, A.B., 1911	SS		Urbana
Dexter, Lulu Belle, A.B., 1914	Mus	166	Urbana
Dial, Tully Smith	Agr		Childress, Texas
Dibelka, James Charles	Med		Chicago
Dibell, Harry Charles	Bus	63½	Wolcott, Indiana
Dick, Clyde Danforth	LAS (SS)	38	Chicago
Dickson, Gerald Edgar	LAS		Hampshire
Dieckmann, Thomas Wilbur	Bus (SS)	112½	Wagoner, Oklahoma
Dieffenbacher, Martha Mitchell	SS	27½	Havana
Diehl, Lloyd Millard	Agr sp		Mt. Morris
Dieserud, Helge Christopher	ME		Washington, D. C.
Dietiker, Edward	Agr		Greenville
Dietmeier, Clarence Richard	Bus	61½	Winslow
Dietmeier, Homer Ray	Med		Winslow
Dietz, John Wamser	Bus		Belleville
Dietzer, Alice Margaret	HSLAS	102	La Grange
Dikis, Alfred	Agr sp	26	Waverly
Dillavou, Essel Ray	L		Champaign
Diller, Harold Francis	Med		Rantoul
Dimmitt, LeNoir, A.B. (Univ. of Texas) 1911	Lb		Austin, Texas
Dingledine, Ira Wilbur	LAS	118½	Peoria
Dippell, Carl Bush	AE	3½	Freeport
Dippell, Ralph Ellsworth	AE	3½	Freeport
Dirks, Bernhard Ernst George	A	127½	Dresden, Germany
Dix, Earl Joseph	EE	105	Marseilles
Dobbins, Verne Foster	EE	112	Champaign
Dodds, Donald Chambers	Bus		Champaign
Dodds, Josephine	LAS	31	Champaign
Dodds, Lois Ellen	LAS	6½	Champaign
Dodge, Hovey Worsdell	CE	62	Chicago
Doe, Weastell Taylor	LAS	20	Kent, Ohio
Doeden, Nellie Render	SS	6½	Cape Girardeau, Missouri
Doerr, Clarence Leo	Agr		Chicago
Doerschler, Willis Harry	Bus	10	Chicago
Doherty, Everett	Agr	109	Fairmount, Indiana
Doherty, Francis Laurence	Agr (SS)	51½	Urbana
Doherty, Margaret Isabella	Mus (SS)	91	Urbana
Dolan, James Leo	Agr	32	Champaign
Dole, Ethel Mary	HS Agr (SS)	100½	Champaign

Dole, Laura Emily	Mus	33	Champaign
Dole, Lillian Dora	LAS (SS)	103½	Champaign
Domas, Justin Aloysius	LAS	106	Shelbyville
Donaldson, Harold James	Agr	49	Polo
Donaldson, John Riley	CE	75	Joliet
Donn, Merrill Carr	LAS	27½	Chicago
Donnell, Allan Douglas	EE	75	Mattoon
Donovan, Leo Francis	Med		Jacksonville
Doolen, Clem Daniel	EE		Centralia
Doolen, Glen Wesley	Med		Centraita
Doran, Myron John	LAS		Chicago
Doremus, Walter Louis, Jr.	Agr sp (SS)	34	Montclair, New Jersey
Dorris, Sylvanus Alpheus	SS		Isabel
Dorsett, Mary Elva	HSLAS	92	Augusta
Dorschler, Leonard Leslie	CE		Chicago
Doty, Dorothy Lanning	LAS		Wilmette
Doty, Helene Eleanore	LAS		Wilmette
Dougherty, Robert Hughes	Agr		Peoria
Dow, Harvey Richard	Bus	60	Geneva
Dowell, Carl Philip	Agr	30	St. George, New York
Downey, Durbin Ralph	Agr	53	Sheffield
Doyle, Bertha	HSLAS		Red Cloud, Nebraska
Doyle, John Francis	Bus	57	Champaign
Doyle, William James	Bus		Champaign
Drake, Charles Arthur	LAS(SS)	3	Denver, Colorado
Drake, Waldo Hiram, A.B., 1911	SS		Stonington
Dralle, Henry Edward	EE	73	Champaign
Draper, Arthur William	LAS	32	Chicago
Draper, Laurence Francis	ME	37	Clinton
Drew, Harold Alvah	Ch		Dixon
Drew, Mildred Evangeline	LAS	74	New Albany, Indiana
Droste, Louis Anthony	Bus	68	Grand Rapids, Michigan
Dubin, Henry	A	111	Chicago
DuBois, Lenore	Mus	31	Peoria
DuBois, Martha Harriet	SS	70½	Eldorado
Duffy, John Clarence	Agr(SS)	71	Ottawa
DuFrain, Frank James	SS	112	Momence
DuHadway, Fred Alan	L	69	Jerseyville
Duke, Harrison Reed	Med	28	Chicago
Dumas, Velma Burdette	Mus		Cicero
Dumke, Mildred	LAS		Elmhurst
Dunavan, Frank Leroy	CE	85	Ottawa
Duncan, Richard Forrester	Agr	30	La Grange
Duncan, Russell Eugene	Bus		Penfield
Duncan, Ruth Anna	SS	13	Mt. Sterling
Duner, Sven	Agr	96½	Wheaton
Dungan, George Harlan	Agr sp	34	Richwood, Ohio
Dunham, Lawrence Henry	ChE	102	La Salle
Dunham, Richard	EE	74	Vinton, Iowa
Dunlap, David Woods	Agr	108½	Champaign
Dunlap, Effie Charlotte	LAS	87	Urbana
Dunlap, Fanny, Ph.B. (Univ. of Iowa) 1905	Lb	52	Champaign
Dunlap, Francis Ellsworth	A (SS)	78½	Maywood
Dunlop, Leonard Eugene	A	28½	Urbana
Dunn, Elizabeth Moore	SS	130	Bellflower
Dunn, Georgiena Evelyn	HSLAS		Hinsdale
Dunn, Ulys Stephen	EE	37	Dorrisville
Dunseth, Roy Clarence	SS	8	Peoria
Dupre, Valentine Harry	EE	33½	Chicago
Durborow, Allan Cathcart	Bus		Lake Bluff
Durfey, Donald	LAS	30	Tolono
Durfey, Dorothy	Mus sp		Tolono
Durst, James Edwin	Agr sp		Quincy
Dutton, Herbert Buell	ME	37	Oak Park
Dutton, Marshall Simeon	MSE	108	Oak Park
Duzenbury, Grant P.	Med		Walseka
Dvorak, Joseph	A		Chicago
Dyer, Ethel Golden	SS	8½	White Hall
Dyer, Lucien Beverstock	CE sp		Hoopeston
Dykeman, Audrey	SS	82½	Streator
Dysart, Benjamin Quincy	Med	71	Granville
Dzen, Peter T	RCE		Saccheun, China
Eade, Ben Cooper	Agr	34	Elizabeth
Eagleton, Ben Pierce	Agr		Peoria
Early, James M.	SS		Pettysville, Indiana
Eart, Bess	LAS	68	Anderson, Indiana
Eaton, Rea Lincoln	Agr		Eaton, Colorado
Eaton, Rex Carr	Agr	69	Eaton, Colorado
Eckstein, Henry Charles	LAS	127½	Peoria
Edgar, Edith	LAS	99	Greensboro, Maryland
Edwards, Edith Anne	HSLAS	106	Indianapolis, Indiana
Edwards, Gail Phillips	Ch		Chicago
Edwards, Harlan Hammond	Agr	77	Chicago

Edwards, M. Reece	<i>Agr (SS)</i>	46	Urbana
Edwards, Morgan Fred, Jr.	<i>Agr</i>	36½	Chicago
Egan, Lillian Elizabeth	<i>HSAgr</i>		Quincy
Eggert, Glenn Hallis	<i>LAS</i>	22	Canton
Ehrlich, Maximilian Charles	<i>Med</i>	30	Chicago
Eichberg, Adrian J.	<i>LAS</i>		Chicago
Eicher, Eugenia	<i>HSAgr</i>	62	Chicago
Eichhorn, William Hirschel	<i>Agr</i>		Mound City
Eickelberg, Herman Daniel	<i>SS</i>		Waterloo, Iowa
Eide, Alwin Clyde	<i>ChE</i>	106	Lee
Eiker, Bessie Hamilton, A.B., 1911	<i>SS</i>		Sparta
Ekstrand, Henry Emanuel	<i>A</i>	94	Waukegan
Elder, Alice Mildred Roach	<i>LAS</i>	96	Augusta
Eleazarian, Aram Movses	<i>EE</i>	125	Teheran, Persia
Eleson, Eugene Robert	<i>Med</i>	24	Elkhart, Indiana
Elles, Edward Charles	<i>Bus</i>	103	Herrin
Elliott, Arthur Roland	<i>Agr</i>	60	Tonica
Elliott, Dana Milton	<i>ME</i>	26½	Matteson
Elliott, Isabel	<i>LAS</i>		Beresford, S. D.
Elliott, Robert Tollington	<i>RCE</i>	29	Wilmington
Ellis, Harvey	<i>Bus</i>	64	Evanston
Ellsworth, Mark Wesley	<i>CE</i>	32½	Libertyville
Elston, Alexander, A.B., 1913	<i>MSE</i>	152	Cumberland, Maryland
Elton, Alexander Stuart	<i>ME (SS)</i>	61	Oak Park
Elwell, Dan William	<i>Bus</i>		Champaign
Emch, Walter	<i>CE</i>	6	Urbana
Emmond, Wyatt Goen	<i>Bus</i>	63	La Grange
Endicott, John Graham	<i>AE</i>		Carmi
Enelow, Helen	<i>LAS</i>		Chicago
Engelland, Edmund Franciscus	<i>EE</i>		Grant Park
England, Grace Adelaide, A.B. (<i>Albion Coll.</i>) 1910	<i>Lb</i>	61	Detroit, Michigan
Engle, Jeannette Morrison	<i>LAS</i>	99	Urbana
Engle, Ralph Nelson	<i>Agr</i>	72	Urbana
Engle, Robert Henry	<i>Agr (SS)</i>	43	Freeport
Engle, Thomas Jason	<i>LAS</i>		Trenton, Missouri
English, Frank	<i>ME</i>		Springfield
English, Lloyd Hayden	<i>Med</i>	77	Chicago
English, Robert Wallace	<i>Agr</i>	7	Bloomington
Eninger, Helen Marie	<i>LAS</i>	97	Arthur
Ensor, Madge Viola	<i>HSLAS</i>		Ridgefarm
Epinger, John George	<i>Bus</i>	81	Quincy
Epstein, Karl	<i>Agr</i>	33	Bloomington
Erbes, Bertha	<i>Agr</i>	50	Centralia
Erdman, Roy Alfred	<i>Agr</i>		Geneseo
Erickson, Edward Bringle	<i>MSE</i>	38½	Chicago
Ernest, Delta Queena	<i>SS</i>	6	Carlyle
Ernest, Ruth	<i>LAS (SS)</i>	95	Urbana
Ernst, Carl Paul	<i>CE</i>	82	Chicago
Ernst, Elmore George	<i>A</i>	87½	Visalia, California
Erwin, Elizabeth	<i>HSLAS</i>	54	Rockford
Erwin, Walter Boynton	<i>Bus</i>	97	Chicago
Eskelson, Minnie	<i>SS</i>	6½	Abingdon
Eskelson, Ola Mattie Josephine, M.S., 1913	<i>SS</i>	8	Villisca, Iowa
Eslick, Leo	<i>ME</i>	112	Lead, South Dakota
Etienne, Leonard Arthur	<i>EE</i>	70	Centerville Station
Ettinger, Charles McKinley	<i>CE</i>	35	Bourbon, Indiana
Euston, Jacob Howard	<i>EE</i>		Richmod, Virginia
Evans, Donald Grover	<i>EE</i>	42	Champaign
Evans, Floyd Evan	<i>ME</i>	37	Hinckley
Evans, Mrs. Frederick Nobel	<i>Mus</i>		Urbana
Evans, Julia	<i>Mus sp</i>		Osico, Indiana
Evans, Vera Kate	<i>Mus sp</i>		Champaign
Evans, Wallis Johnson	<i>ME</i>	25	Kenilworth
Everham, William Edward	<i>ME</i>	45	Chicago
Everhart, Philip Hiram	<i>LAS</i>	111	Champaign
Ewer, Warren Badger	<i>AE</i>	45	Chicago
Ewert, Earl Cranton	<i>LAS</i>	30	Danville
Excell, Stuart William	<i>CE</i>	36	Chicago
Fyman, Margaret	<i>HSAgr</i>	29	Oak Park
Fackler, Orpheus A.	<i>SS</i>	24	Alvordton, Ohio
Fagan, Ellen	<i>SS</i>		St. Charles
Fager, Eugene Philip	<i>Ch</i>		Murphysboro
Fager, George Edward Kirchner	<i>Agr</i>		Murphysboro
Fairbanks, Berthier Wesley	<i>Agr</i>	70	Chicago
Fabrnkopf, Charles Frank	<i>SS</i>	4	Decatur
Fair, Sue Mabel, A.B., 1909	<i>SS</i>		Chrisman
Fairlie, Margaret Carrick	<i>SS</i>	4½	Urbana
Fairman, Charles	<i>LAS</i>		Alton
Falder, Gerald Hartley	<i>LAS</i>	17	Macomb
Faletti, Michael Joseph	<i>L (SS)</i>		Taft
Farah, Salim Raji	<i>Agr</i>	51½	Nazareth, Palestine

Fargo, Mrs. Roy Newton	Mus sp		Urbana
Farley, Frank Webster	Agr	99	Jonesboro, Arkansas
Farmer, Elma Leola	Agr		Belleville
Farmer, Orena	LAS	104	Belleville
Farnam, Bertha Lucille	LAS	22½	Paunee
Farnham, Albert Ayrton	Agr	70	Westfield, Massachusetts
Farrand, Ralph Parker	Bus		Griggsville
Fasold, Alice Margaret	Med	30	Globo, Pennsylvania
Fasold, Miriam Rebecca	LAS	70	St. Louis, Missouri
Faulk, Merrill Clifford	LAS	33	Urbana
Faulkner, Fay Edward	LAS (SS)	115	Champaign
Faurote, Guy Columbus	A	108	Niles, Michigan
Fauth, Irene Mae	HSLAS		Aurora
Fay, Donald Allen	Bus	33	Urbana
Fedde, Ruth Catherine	HSLAS	85	Peotone
Federmann, Charles Russell	A	91	Brookville, Indiana
Fehrman, Florence	LAS	93	Pekin
Feldman, Joseph Elmer	Agr	82½	Morrison
Feldman, Nathan	Med		Chicago
Felger, Walter Blaine	Ch	97½	Cheadle, Alberta
Felmley, John Benjamin	AE	6	Normal
Felsenthal, Emma, B.L.S., 1912	SS	67	Urbana
Felton, Harold Norton	EE	37	Mendota
Feng, Kaimin Kay	CE	110½	Pai-lui, China
Ferguson, Clarence Milford	Agr	105	Grand Forks, North Dakota
Ferguson, Florence Roxana	HSLAS	64	Annawan
Ferguson, Frank Cleveland	LAS	67	Annawan
Ferguson, George Alonzo	A	36	Washington, D. C.
Ferguson, Howard Ritchey	LAS	36	Champaign
Ferguson, James	SS	8½	Trimble
Ferguson, Kate Dorothy	Lb sp		Weymouth, England
Ferrell, Cyrus Porter	EE	74	El Paso
Fetherston, James Edward	Med (SS)	94½	Gronard, Alberta
Feuer, Bertram	ChE	8	Chicago
Fickett, Edward Maynard	Agr		Chicago
Field, Howard, Jr.	ME	36	Wilmette
Field, Roswell Francis	LAS	89½	Chicago
Fielding, Mabel	Mus	79	Champaign
Fields, Floyd Logan	Agr	31	Anderson, Indiana
Fienhold, Harry John	Agr sp	28	Pontiac
Fiero, Elmer Ellsworth, A.B., 1914	L	21	New York City
Fifield, Clarence Eugene	Bus (SS)	70	Buda
Finley, Margaret Alice	LAS		Hoopeston
Finley, Marion Reece	Agr	33	Hoopeston
Finn, Edmund Matthew	AE	45	Lawrence, Massachusetts
Finnegan, James Henry	Agr	88	Brimfield
Finney, Calvin Jonathan	LAS(SS)		Greenup
Finney, Stella Belle	SS	130½	Bismark
Finnigan, Martha Mary	LAS		Champaign
Finnigan, Thomas Joseph	LAS		Champaign
Firebaugh, Richard David	LAS	38	Robinson
Fischer, Lucy Caroline	HS Agr sp		Bensenville
Fischer, Mary Louise	HS Agr sp		Bensenville
Fischer, Ralph	Agr	34	Freeport
Fischer, Walter Rathfon	Med	56½	Chicago
Fish, Julian Lounsbury	Agr	89	Buffalo, New York
Fish, Vivian Mary	SS	8½	Benton
Fisher, Abigail Eliza	LAS		Geneseo
Fisher, William Arthur	SS	7	Ogden
Fisher, Clarence	Agr	5	La Grange
Fisher, Clarence John	LAS		Chicago
Fisher, Erwin	Bus	70	Chicago
Fisher, Forrest A., B.S., 1911	Agr sp	137½	Greenup
Fisher, Frederick Harrington	Bus		South Bend, Indiana
Fisher, Harry Eastman	MSE	51	Chicago
Fisher, Helen Vastine	LAS	66	Geneseo
Fisher, Ronald Mitchell	REE	37	Indianapolis, Indiana
Fishman, Alvin Texas	Agr	80½	Bosky Dell
Fisk, Fritz Harris	L	15½	De Kalb
Fitch, Howard J.	Agr	33	Rockford
Fitch, Joseph Gibson	LAS	13	Madison, Wisconsin
Fites, Herald B.	Agr	33	South Bend, Indiana
Fitzgerrell, Jack Allen	Agr	77½	Ewing
Fitzgerrell, Sylvester Stanton	LAS	42	Benton
Fitzpatrick, James Claude	MnE	34	Gillespie
Flannery, Charles Abusdal	ME	41	Chicago
Fleck, Arthur William	A	35	Indianapolis, Indiana
Fleming, Andrew Edward	Agr		Melrose Park
Fleming, Denna Frank	LAS sp	7½	Paris
Fleming, Sara Adelaide, A.M., 1912	SS		Danville
Flemming, John Herman	A	37	Davenport, Iowa
Fletcher, Mabel Elizabeth Billing	SS	8	Decatur
Fletemeyer, Frederick Rudolph	AE	76½	Lafayette, Indiana

Flexer, Edna Helen	HSLAS	18	Joliet
Flock, Marguerite Pauline	LAS		Urbana
Flock, Ward John	Agr	31	Urbana
Flodin, Harold Leo	ME	108	Chicago
Flood, Grace	LAS	26	Terre Haute, Indiana
Flood, Martin	EE		Cortland
Floyd, Florence Mallery	Lb sp		Long Beach, California
Fluke, Autha Maybelle	LAS		Chicago
Fogg, Alden Knowlton	CE	108	McConnell
Fogler, Harry Leroy	SS	8	Westfield
Fogler, Mayor Farthing	Agr		Vandalia
Fong, Mon Charles	SS	51	Alvarado, California
Fontaine, Everett Orren	LAS (SS)	102	Momence
Foot, Lorenzo Stephen	Agr sp		Stronghurst
Ford, Hanby Lewis	Med	32	Flat Rock
Forkey, Mildred Lillian	HS Agr	61	Prophetstown
Forsythe, Albert Ernest	ChE (SS)	5	Pt. Antonio, Jamaica
Fortune, Cynthia Ann	LAS		Springfield
Forty, Frank Alfred	EE	108	Chicago
Forward, Mary Cornelia	SS		Urbana
Foster, James Clifford	Agr		Bradford
Foster, Dean Lester	EE	20	Puxico, Missouri
Foster, Donald De Vere	Bus	113	Boswell, Indiana
Foster, Frank Ward	EE	56	Alexis
Foster, George Henry	ChE	31	Lenox Dale, Massachusetts
Foster, Ralph Nave	ME		Attica, Indiana
Foster, Richard Baxter	LAS		Chicago
Foulke, Claude Clifton	Bus	63	Worthington, Indiana
Foulke, Ronald Edward	EE		Aurora
Fowler, Wiley Marion	Bus	112	Penfield
Fox, James Leslie	MSE	55	Englewood, New Jersey
Fox, Jessie Lucilla	HS Agr	23	Urbana
Fox, Ray Stewart	SS		Urbana
Fox, Ruth Leda	LAS	34	Upper Montclair, New Jersey
Frail, James Eddis	SS	26½	Lajayette
Frailley, Lester Eugene, A.B., 1914	SS		Urbana
Frame, Warren Aaron	Bus		Milford
Francis, Arthur Lewis	Bus		Chicago
Francis, Helen Elizabeth	LAS	62	Wyoming
Fraser, Mrs. Alice Eaton	Mus sp		Champaign
Fraser, Cecil Eaton	LAS		Champaign
Fraser, Thomas	MnE	37	White Hall
Frazier, Disk Sylvester	CE	109	Maywood
Frazee, Anna Dora	LAS	85	Moweaqua
Frazier, George Carlyle	Agr	101½	Lockport
Frazier, Arthur Owen	LAS	92	Paris
Frazier, Walter Stephen	LAS	36	Aurora
Freark, Park West	MSE	75	Champaign
Freark, Ray Henry	Med		Champaign
Frederick, Eugene Mark	Agr	33	Clarence
Freels, John William	L	28	East St. Louis
Freeman, Kilburn Bartlett	CE	33	Champaign
Freeman, Marie, A.B., 1913	HSLAS	131	Urbana
Freer, Arthur Warren	CE	43	Chicago
French, Ida Bertram	SS		Medora
French, Randall White Burns	Agr		Muskegon, Michigan
Freund, Gustave Louis	ChE (SS)	10	New York City
Frey, Hollis Oldfield	EE	28	Secor
Frick, Arthur Henry	Agr		Champaign
Fried, Harry Nathan	Agr	33	Chicago
Frier, John	ME	73½	St. Louis, Missouri
Fries, John Edmund	SS		Waterford, Wisconsin
Frison, Theodore Henry	LAS		Champaign
Froehlich, Hugo Ferdinand	EE	79	St. Louis, Missouri
Frohardt, Elmer Philip	Agr	21½	Granite City
Froman, Cleo Russell	L	59	Golden, Colorado
Frost, Walter Kilborn	Bus		Rockford
Fruiland, Ruth Myrtle	LAS	22	Sheridan
Frye, Fred	Med		Swayzee, Indiana
Frye, Hazel Mary	LAS	81	Fairbury
Fuller, Elizabeth Genevieve	LAS	96	Chelsea, Michigan
Fuller, Harold Coulton	A	107	Indianapolis, Indiana
Fullerton, Theron Bushnell	SS	101	Ottawa
Fulton, Guy Chandler	A	98	Warsaw
Fung, Yu Nan	Agr	17	Hunan, China
Funk, Ruth Scovell	HS Agr	26	Urbana
Furr, Paul M	Agr	40	Carbondale
Gabel, Helen Louise	LAS	32	Belvidere
Gabriel, Carson King	Med	33	Payson
Gaddis, Jessie Maria	Mus (SS)	88	Champaign
Gage, John Howard	LAS	63½	Texico
Gaines, Mary Glendora	HSLAS		Broadlands
Gallagher, Fred Barron	MSE		Rockford

Gallaher, Harold	EE	62	Tiskilwa
Gallivan, Lyle Hugo	AE		Champaign
Galster, Alma Lydia	SS	8	Tower Hill
Galster, Augusta Emilia	SS	34	Tower Hill
Galvin, Paul Vincent	Bus	27	Harvard
Gambach, Jacob C, A.B., 1906	SS	8	Hecker
Gamble, Clare Curtiss	Bus	102	Valleyfield, Canada
Gannaway, Lelia Maude	LAS		Gays
Gants, Elwyn Tracy	ME	75	Wenona
Gantz, Howard Stanley	Agr (SS)	30	Champaign
Garber, Alfred Emanuel	Agr (SS)	40	Gibson City
Gardiner, John Low	LAS (SS)	101	Chicago
Gardner, Franc John	ChE	32	Chicago
Gardner, McKinley	LAS		Auburn
Garrett, Texie Elizabeth	LAS sp		Dixon, W. Va.
Garrison, Edith Grace	Mus		Urbana
Garten, William Raymond	LAS (SS)	113	Odon
Garth, Casper Tyrrell	Bus	26	Beaumont
Garvey, Edward James	SS	32	Faribault, Minnesota
Gary, Jesse Lehman	CE		Carmi
Garza, Roman de la	CE	54	Cabinas, Hidalgo, Mexico
Gassett, Leo Everett	Agr		Lincoln
Gatlin, Mae	Bus		Waukegan
Gauger, Joseph Frederick	Agr	65	Champaign
Gauger, Raymond Wallace	LAS	53	Champaign
Gaunt, Gail	LAS	11	Mound City
Gaut, Rosa-Lee, B.Mus., 1912	LAS		Champaign
Gay, Ernest Hubbard	Agr (SS)	38	Quincy
Gay, Grace Amelia	SS sp	31	Quincy
Gayle, Robert Edwin	Agr (SS)	66	Lincoln
Gaynor, Gertrude Genevieve	Mus sp		Grand Rapids, Wisconsin
Gehant, Evelyn Ella	Agr (SS)	65	Dixon
Gehant, George Modiste	HS Agr	30	Dixon
Gehant, Rosalie Florence	HS Agr	59	Dixon
Gehlbach, Oscar Herman	Bus		Lincoln
Gehrig, Edward Franklin	ME	103	Grantfork
Geib, George Albert	CE	88	St. Paul, Minn.
Geiger, Charles Francis	CerE	108	Chicago
Geiger, Lester Charles	Bus		Mendota
Geiler, Frank Herman	L	30	Mansfield
Geisendorfer, Karl Edward	Agr	46	Pittsfield
George, Leslie Godfrey	L		Staunton
Gerlach, Alma	HSLAS		Doniphan, Missouri
Gerling, Richard William Herman	CE		Bloomington
Gernand, Paul	Agr		Danville
Gernard, Oliver Perry	Agr	34	Rossville
Gerten, Nicholas	CE	43	Chicago
Geselbracht, Howard Cyril	Agr	33	Chicago
Gettys, Ruth Hortense	LAS	32	Chicago
Gewalt, Carl Henry	A		Breckenridge, Minnesota
Geyer, Denton Loring, Ph.D., 1914	SS	64	Madison
Geyer, Grace Mildred	LAS	67	Roswell, New Mexico
Gherganoff, Penco	CE sp		Lovetch, Bulgaria
Ghislin, Lloyd Havins	Bus		Oak Park
Ghormley, Harry Knox	SS sp	8	North Yakima, Wash.
Gibbons, Maud Alberta	LAS	30	Metropolis
Gibson, Charles Rannells	Agr sp	19	Hanover Centre, Mass.
Gibson, Harry Wilson	Bus	8	Muskogee, Oklahoma
Gibson, James Raymond	Bus		Chicago
Gibson, Mable Helen	HS Agr (SS)	107	Woodstock
Gibson, Oscar Harry	LAS	60	Norwood
Gibson, Sylvia Rose	LAS	33	Chicago
Gibson, Thomas Robert	Bus		Chicago
Giddings, Mate Lewis	HSLAS	30	Danville
Gideon, Alva Jennings	LAS		Oklahoma City, Oklahoma
Gideon, Charles Russell	LAS	30	Oklahoma City, Oklahoma
Giertz, Arthur Edward	CE	33	Elgin
Giesler, James Raymond	Bus	35	Muscatine, Iowa
Gifford, Ralph Egley	Bus	35	Onarga
Gift, Lyle Henry	Agr	37	Peoria
Gilbert, Arthur Abbott	EE	37	Pana
Gilbert, James Harman	L	28	Mt. Vernon
Gilbert, Minnie Ellen	LAS	53	Dillon, Montana
Gildner, Ellsworth Lowell	AE		Atlantic City, New Jersey
Giles, Louis Wentworth	AE		Washington, D. C.
Gilkey, John Ray	Agr (SS)	83	Hume
Gill, Clarence Scott	RCE		St. Louis, Missouri
Gill, George Thallon	Agr	122	Evanston
Gill, Grant William	Agr		Evanston
Gill, Ivan C	Agr		Albion
Gillen, Ira Edward	LAS		Racine, Wisconsin
Gilliam, Willard Clark	ME	34	Edwardsville

Gilmore, Leonard Mason	<i>Agr</i>	95½	Moline
Gilpatrick, Gladys	<i>HSAgr</i>	34	Plano
Ginter, Clarence Marshall	<i>EE</i>		Peotone
Girhard, Harold Raymond	<i>LAS</i>		Newton
Glass, Charles Neilson Dorland	<i>Agr</i>		Chicago
Glassco, Roy Thomas	<i>Agr</i>	95	Denhoff, North Dakota
Glassco, Ruth Marie	<i>HSAgr</i>	28	Urbana
Glenn, Edna	<i>SS</i>	18½	Mt. Vernon
Glenn, Murray Otto	<i>LAS</i>	61½	Magnolia
Glessing, Barbara Frances	<i>LAS</i>	72	El Paso
Glick, Everett E	<i>Agr</i>	76½	Rochester, Indiana
Glover, Clarence Washburn	<i>L</i>		Ottawa
Glover, Donald Mitchell	<i>Med</i>	71	Urbana
Glover, Leonard Wood, A.B.1912, B.Mus.1914	<i>SS</i>		Urbana
Glover, Rodney Champlin	<i>L</i>	57	Ottawa
Glover, Walter Earl	<i>A</i>	113½	Topeka, Kansas
Gluck, Arthur Louis	<i>CE</i>		Minneapolis, Minnesota
Gnaedinger, Robert Joseph	<i>ChE</i>	59	Chicago
Goddard, James Douglas	<i>Med</i>		Marion
Godehn, Reuel Ariel	<i>AE</i>	76	Moline
Godfrey, Eleanor	<i>LAS (SS)</i>	117	Urbana
Godfrey, Frank	<i>Bus</i>		Staunton
Godowsky, Ulysses Gilbert	<i>Med</i>		Chicago
Goebel, Irma Gretchen	<i>LAS</i>	97	Urbana
Goebel, Ruth	<i>SS</i>	4½	Streator
Goelitz, Walter Adolph	<i>Agr</i>		Ravina
Goelitz, William Henry	<i>Bus</i>	86	Oak Park
Goetz, Antoinette Helen, A. B., (Iowa State Univ.) 1906	<i>Lb</i>	52	Iowa City, Iowa
Goff, Roy Allen	<i>Agr</i>	140	Galesburg
Gogerty, Henry L	<i>A</i>	88	Zearing, Iowa
Goldberg, Charlotte Deana	<i>LAS</i>	33	Chicago
Goldberger, Henry Joseph	<i>CE</i>	46	Chicago
Golden, Wesley Barton	<i>Bus</i>	103	Champaign
Goldin, Harold Edward	<i>A</i>		Chicago
Golding, John Noble, Jr.	<i>Agr sp</i>		New York City
Goldman, Ellis Ralph	<i>CE</i>	124	Rockford
Goldschmidt, Erna Claire	<i>HSLAS</i>	32	Davenport, Iowa
Goldschmidt, Samuel Meyer	<i>Bus</i>	68	Aurora
Goldsmith, Frank French	<i>Agr</i>	16½	Wataga
Goldstein, Robert Sidney	<i>RCE</i>	62	Chicago
Gomez, Arzapalo Ernesto	<i>CE</i>	111	Guadalajara, Mexico
Gomez, Arzapalo Ramiro	<i>Bus</i>		Mexico City, Mexico
Gonzaga, José Cesar	<i>CE</i>	20	Rio de Janeiro, Brazil
Gooch, Dewitt Robert	<i>Agr</i>		Bellflower
Gooch, Gretchen Louise	<i>LAS</i>	66	Bellflower
Good, Elizabeth	<i>Mus sp</i>		Urbana
Goode, Eslanda Cardozo	<i>HSLAS</i>	16	Bayport, Long Island
Goodell, Horace Holbrook	<i>CE</i>		Beardstown
Gooding, Laura Lavonia	<i>SS</i>	4	Belleville
Goodman, Albert Nelson	<i>A</i>		La Salle
Goodman, Cyril James	<i>Bus sp</i>		Chicago
Goodman, Edwin Rheinstrom	<i>CeE</i>		Terre Haute, Indiana
Goodman, Willard Gaddis	<i>Bus</i>		Champaign
Goodman, Eva Marie	<i>HSLAS</i>	28	Champaign
Goodrich, Robert James	<i>ChE</i>	61	N. Brookfield, Mass.
Goodsmith, Howard Moulding	<i>SS</i>	4½	Chicago
Goodwin, John Hanford	<i>Agr</i>		Champaign
Gore, Roy Cletis	<i>LAS</i>		Urbana
Gorey, George Francis	<i>MSE</i>	37	Joliet
Gormley, Vincent Lewis	<i>Agr</i>	40½	Chicago
Gossett, Vera Ople	<i>LAS</i>	96	Casey
Goudy, Don Coleman	<i>ME</i>	32½	Fairfield
Goudy, William John	<i>ME</i>		Fairbury
Gougler, Mildred H	<i>SS</i>		Ipava
Gould, Anthony Ready	<i>Agr (SS)</i>	41	Urbana
Gould, Maurice Augustus	<i>CE</i>	33	New Sharon, Iowa
Gouwens, Estev William	<i>Bus sp</i>	30	South Holland
Grabbe, John Christian	<i>Agr</i>	67	Urbana
Grace, Floyd Vivian	<i>LAS</i>		Metropolis
Grace, George Lee	<i>L sp</i>		Metropolis
Graham, Elizabeth Ellen	<i>LAS</i>	84	East Dubuque
Graham, Harold Brown	<i>Agr</i>	37	Los Angeles, California
Graham, Walter Thompson	<i>SS</i>	7	Kinmundy
Graham, William Morland	<i>LAS</i>		Almyra, Arkansas
Grant, Clarence Todd	<i>EE</i>	74	Elgin
Grant, Ruth Margaret	<i>HSLAS</i>	61	Urbana
Grantz, Raymond Lorimer	<i>L</i>		Rockford
Grape, Nellie Washington	<i>SS</i>	6	Chicago
Graven, Anker Suerre	<i>A</i>	48	Menominee, Wisconsin
Graves, Frank Wilkinson	<i>Agr (SS)</i>	38	Silver Creek, New York
Graves, Nellie Ruth	<i>HSLAS</i>	21	Champaign
Graves, Perry Henry	<i>Bus (SS)</i>	93	Rockford

Gray, Claudia Marie	LAS	Palmyra, Missouri
Gray, Cora Emeline, M.S. (Univ. of Chicago) 1909	Mus	W. Palm Beach, Florida
Gray, James Madison	Bus	4 Decatur
Gray, Leslie Roy	EE	36 Odell
Gray, Otto Benton	Agr	Maroa
Gray, Ralph Edward	Cer	32 Arcola
Gray, Ruth	HSLAS	56 Des Moines, Iowa
Grayhack, John Edward, Jr.	CE	74 Joliet
Green, Alexander	Mus sp	Champaign
Green, Alta	LAS	98 Urbana
Green, Dorothy May	SS	6 Morrisonville
Green, Esther Cranston	HSLAS	Urbana
Green, Eulalie	HSLAS	98 Oakwood
Green, Gladys	HSLAS	32 Oakwood
Green, Ralph	CE	108 Chicago
Greenberg, David	Bus	Chicago
Greenburg, Roland Everett	ME (SS)	134 Champaign
Greene, Joel Waring	LAS	Urbana
Greene, Joseph Nathaniel	Agr	104 Chicago
Greenfield, Richard Fletchard, Jr.	ME	Chicago Heights
Greengard, Louis Jacob	Agr (SS)	80 Chicago
Greenhill, Harold	ME	36 Chicago
Greenspahn, Abraham	LAS	Chicago
Greenwell, Earl Eugene	ChE	34 Harvey
Gregg, Marion Elsie	HSLAS	29 Chicago
Gregory, Emma	SS	7½ Normal
Gregory, James Henry	Bus	Aurora
Gregory, Joseph Van Clief	ME	63 Kansas City, Missouri
Gregory, Lewis Throckmorton, A.B., 1913	Med	131 Chicago
Gregory, Malcolm White	AE	Knightstown, Indiana
Gregory, Porter Tate	EE	Fulton, Kentucky
Gregory, Richard Earl	CE	Moweaqua
Greison, Hans Peter	Bus	56 Savanna
Grewe, Charles Henry	Agr	Lawrence, Michigan
Grey, Newton Fox	Agr	61 Evanston
Gridley, William Whitney	Bus	69 Amboy
Grieser, Grandison Lloyd	LAS	34 Quincy
Grieser, Leroy Oliver	Agr (SS)	62½ Quincy
Griffin, Jack Mitchell	Agr	96½ Evanston
Griffith, Burdette	Agr	26 McNabb
Griffith, Francis Dickerson	Agr	70 Chicago
Griffith, Mildred Elizabeth	LAS	124½ Ashton
Griffith, Stanwood John	Agr	Ashton
Griffith, Vernon Sumner	Cer	Clinton
Griffiths, David Wood	AE	Oak Park
Griftner, James Howard	MnE (SS)	113 Champaign
Grigg, Jerome Bruner	MnE	Joplin, Missouri
Grigsby, Hugh	Agr	65 Medina, Mexico
Grigsby, Melborn Redmond	SS	8 Petersburg, Indiana
Grimmer, Marguerite Esther	LAS	4 St. Louis, Mo.
Gripp, Elmore Albert	RCE	Moline
Griswold, George Durfee	ME	108 Chicago
Gronlun, Hubert Kenyon	AE	28 Elgin
Gross, Charles Raymond	LAS	Chicago
Gross, Christian	Agr	28 Chicago
Gross, Dorothy Lillian	HSLAS	Carlyle
Gross, Meda Floy	LAS	85½ Monticello
Grossberg, Victor Hubert	L	Chicago
Grossman, Donald Ashway	L	30 Champaign
Grossman, Ralph Emery	LAS	69 Champaign
Grossman, William Abraham	ME	Peoria
Grotevant, Nina	HSLAS	Pekin
Grover, Donald Dana	AE	Rockford
Gruhl, Clarence James	AE (SS)	64 Milwaukee, Wisconsin
Grundy, Charles Edwin	SS sp	7½ Morrisonville
Gruener, Elmer John	EE	68 Speer
Gruener, Raymond William	EE	2 Speer
Grunewald, Augustus Henry, Jr.	Agr	109½ Chicago
Grunewald, Herman C	CE	85 St. Louis, Missouri
Gruny, George Robert	Agr	Camp Point
Gudbrandsen, Kirsten Johanna	LAS	Chicago
Guernsey, Ernest William	ChE	Vincennes, Indiana
Guffin, Lillian Irene	LAS	94 Urbana
Guhl, Marvin Charles	Med	Freeport
Guild, Lois Green	HSAgr	53 Urbana
Guilliams, Gordon Baudouine	Agr	Evanston
Guimaraes, Ary de Segadas Machago	EE	26 Rio de Janeiro, Brazil
Gulick, Edward E. B. L. 1892	SS	7 Champaign
Gulick, Mrs. Jessie	SS	Carbondale, Kansas
Gulley, Sanford Joseph	ME (SS)	9½ Urbana
Gum, Harry Allen	ME	72 Marseilles
Gumm, Leslie Monroe	EE	73 Marseilles

Gunkel, Woodward William	Bus	58	Sheffield
Gunnell, Palmer Mackenzie	L	56	Wichita, Kansas
Gunther, Felix Arno	EE	37	Quincy
Gustafson, Carl Albert	AE	37	Fort Dodge, Iowa
Gustafson, George Philip	Bus	67	Sycamore
Guy, George Arthur	L sp		Austin, Minnesota
Guynn, Ina Merle	HS Agr sp		Charles City, Iowa
Guynn, Jesse Frederick	Agr		Dewey
Gwinn, Edith	HSLAS	110½	Champaign
Haag, Vernon William	Ch	103	Mazon
Haaker, Harold Henry	A		Omaha, Nebraska
Haan, George William	Med	93	Aurora
Haas, Orville Francis	EE		El Paso
Haase, Elizabeth Elsa	HSLAS		Oak Park
Hachman, Logan Fred	L (SS)		Evansville
Hackley, Elizabeth Pursel	LAS	31	Urbana
Hackley, John Hale	EE		Marengo
Hada, Katsuki	LAS		Kochi City, Japan
Hadden, Chester Gilbert	Agr	69	Chicago
Hadley, Lillian	Mus		Cambridge
Hadley, Maude	SS	6	Greenup
Hagan, Thomas Angus	Agr	70	Champaign
Hagan, Warren Lynn	SS	8½	Windsor
Hagener, Arthur	CE (SS)	115	Beardstown
Hager, Henry Merritt	Bus	35	Dwight
Haggott, William Stiles	EE	108	Keokuk, Iowa
Hagler, Kent Dunlap	LAS		Springfield
Hague, Stella Mary	SS	22	Auburn, Indiana
Hahn, Fred Charles	ChE	69	Springfield
Haines, Forrest Livingston	Bus	69	Urbana
Hair, Arthur J	EE		Greenville
Haish, Theodore Adam	Agr	29	Hinckley
Hakanson, Arthur Ferdinand	ChE (SS)	109½	Chicago
Hake, Mrs. Minnie Etta Thomas	LAS	71½	St. Louis, Missouri
Halas, George Stanley	Cer	6	Chicago
Halas, Walter Henry	AE	97	Chicago
Halbruge, Charles Morgan	Bus	61	Rockport, Indiana
Haldeman, Glenn Merlin	EE	5	Ponca City, Oklahoma
Hall, Charles Myron	CE	36	Burlington, Iowa
Hall, Edward Knight	Agr		Ladybrand, S. Africa
Hall, Emory George	Bus	31	Rockford
Hall, George Ross	L	2½	Oak Park
Hall, Helen Evalyn	HS Agr		Attica, Indiana
Hall, Janie	SS	8	Rural Hill
Hall, Joseph Lowe	ChE		Sullivan
Hall, Kenneth Canright	EE	10	Chicago
Hall, Lisle Gwynne	SS	130½	San Francisco, California
Hall, Marion	Agr sp		Quincy
Hall, Mary Helen	SS		East Liverpool, Ohio
Halliwell, Pauline	LAS	80	Chicago
Halstrom, Bernhard Christian	AE	17	Chicago
Halterman, Henry James	ME	131½	Anna
Haltom, Horace Marie	LAS	76	Brooklyn, Indiana
Halushka, Gertrude	LAS	102	Chicago
Hamann, Christian F	CE	14	Rockport
Hamill, Eugene Carl	AE	103	Bloomington
Hamilton, Chauncey Geyer	Bus	34	Colfax
Hamilton, Cliff Struthers	ChE	119	Monmouth
Hamilton, Don Herman	Agr	31	Paris
Hamilton, Donald Alan	A	28	Spokane, Washington
Hamilton, Tom Sherman	Ch	33	Paris
Hamilton, William Jacob	LAS		Latham
Hammit, Andrew Baker	AE	112	St. Paul, Minnesota
Hammond, Asaph Chandler	Agr		Warsaw
Hammond, Leonard Aaron	Agr		Warsaw
Hammond, Lucinda Belle	LAS		Chicago Heights
Hancock, Myron Scott	EE	37	Beecher City
Hancock, Walden Wood	Bus		Casey
Handley, Anna	SS		Albion
Hanford, Marguerite Mary	LAS	91½	Carbondale
Hanger, Paul Newton	Agr	32	Urbana
Hanley, Emil Wiley	LAS		Rensselaer, Indiana
Hannmore, John Leon	L	5	Urbana
Hannah, Harry Ingalls, A. B., 1913	L	62	Urbana
Hannush, Paul	Agr	83	Pateron, New Jersey
Hanschman, Fred Robert	A		Dolton
Hansen, Andrea Theodora	SS	4	Chicago
Hansen, Auker Fred	A		Oshkosh, Wisconsin
Hansen, Clarence Magnus	Med		Racine, Wisconsin
Hansen, Stanley	ME	80	Chicago
Hanson, Mrs. Harriet Roman	LAS	29	Washington, D. C.
Hao, Tso Chang	Bus (SS)	92	Wuchingsien, China
Harbarger, Lelia Merle	Agr	143½	Hamden, Ohio

Hardesty, Albert Vergil	<i>Agr</i>		Homer
Hardesty, Bonnie Jean	<i>LAS</i>	21	Homer
Hardesty, Gladys Mabel	<i>SS</i>	3	Homer
Hardie, Francis Clarke	<i>Agr</i>		Waukegan
Hardiman, Leo Bernard	<i>AE</i>	36	Los Angeles, California
Harding, Albert Austin	<i>SS</i>	107	Champaign
Hare, Fay Charles, A. B., 1913	<i>SS</i>	130	Gilman
Hargrave, Kathleen	<i>SS</i>		Nashville, Tennessee
Harland, Marion Boyer	<i>Agr</i>		Washington, Iowa
Harmon, Homer Noah	<i>SS</i>	3	Walsh
Harmon, William Thomas	<i>SS</i>	8	Jacksonville
Harnish, Wilbur Eugene	<i>SS</i>	7½	Mechanicsburg, Pa.
Harper, Chester C	<i>Agr</i>		Ogden
Harper, Ernest Glenn	<i>LAS (SS)</i>	25½	Glasford
Harper, Homer Munda	<i>Agr sp</i>		East St. Louis
Harper, Julia Alberta, A. B., 1913	<i>Mus</i>	141	Urbana
Harpole, Tillman Hardy	<i>LAS</i>	29	St. Louis, Missouri
Harris, Alice Irene	<i>LAS</i>	27	Elgin
Harris, A. Ross	<i>EE (SS)</i>	52	Vinita, Oklahoma
Harris, Charles	<i>ME</i>		Washington, Indiana
Harris, Elizabeth Payne	<i>LAS</i>	31	Champaign
Harris, Elodia Fern	<i>HSLAS</i>	72	Marion
Harris, Gordon Turner	<i>Bus</i>		Bismark, North Dakota
Harris, Hannah Hahn	<i>LAS</i>	40	Champaign
Harris, Herbert Henry	<i>Agr</i>	104	Madison
Harris, Leo Gabriel	<i>Bus (SS)</i>	72	Wilton Junction, Iowa
Harris, Lois Myrtle	<i>LAS</i>	107	Sheldon
Harris, Mandel H	<i>A</i>	105	Chicago
Harris, Robert Bruce	<i>Agr</i>		Gilman
Harris, William Rutledge	<i>L</i>		Macomb
Harrison, Alice Sinclair	<i>SS</i>		Austin, Texas
Harrison, Benjamin Samuel	<i>LAS (SS)</i>	5	Villa Grove
Harrison, Edward Arthur	<i>Agr</i>		Morris
Harrod, Byrd Henry	<i>AE</i>	32	Fort Wayne, Indiana
Harsch, Eugene Milton	<i>Agr</i>	108	Peoria
Harshbarger, Everett Leonard	<i>Agr</i>	29½	Ladoga, Indiana
Hart, Albert	<i>EE</i>		Galatz, Roumania
Hart, Archie Harrison	<i>Agr</i>	48	Grand Chain
Hart, Herbert Earle	<i>L</i>	45	Westfield, Massachusetts
Hart, Marion Murphy	<i>LAS</i>		Benton
Hart, Richard Nelson	<i>Agr</i>	58	Brighton
Hart, Roland Emerson	<i>EE</i>	110	Cleveland, Ohio
Hart, William Ward	<i>L</i>	25	Benton
Hartford, Naoma R	<i>LAS</i>	98	Champaign
Hartigan, Frank J	<i>Bus</i>		Chicago
Hartley, Omer	<i>Agr</i>		Mattoon
Hartman, Laura Ellen	<i>LAS</i>	76	Milford
Harver, Robert Allen	<i>ME</i>		Fairfield
Hartwell, Godfrey	<i>AE</i>		La Porte, Indiana
Harvey, Eugene James	<i>EE</i>	5	Chicago
Harvey, Ralph Frame	<i>Agr</i>	65½	Indianapolis, Indiana
Harward, Mary	<i>SS</i>		Washington, Indiana
Harwood, Sylvan Dix	<i>LAS</i>	71	Carrollton
Harz, Albert William	<i>Agr (SS)</i>	38	Champaign
Haskett, Leslie Dougherty	<i>SS</i>	8	Neoga
Haslund, Roy Harrison	<i>A</i>		Minneapolis, Minnesota
Hatcher, Charlotte Louise	<i>SS</i>		Clinton
Hatfield, Helen Gertrude	<i>HSLAS</i>	3	St. Louis, Missouri
Hatfield, William Durrell, B.S. (Illinois Coll.) 1914	<i>SS</i>	7	Jacksonville
Hathaway, Earl Edgar	<i>CE</i>		Harvey
Hathorne, Marjorie	<i>HSLAS</i>	34	Waukegan
Hathorne, Wade Shermin	<i>Ch</i>		Waukegan
Hattenhauer, Robert Clinton	<i>ME (SS)</i>	75	Peru
Hauber, Carl	<i>A (SS)</i>	103½	Springfield, Missouri
Haulman, Orrin Winfield	<i>SS</i>	8	Springfield, Ohio
Haumesser, Arnold	<i>ME</i>		East St. Louis
Hawes, Henry Clifford	<i>Bus</i>	64	Atlanta
Hawkins, Emin Witherspoon	<i>Agr</i>	60	Fairmount
Hawkins, James Summer	<i>Bus</i>	29	Marion, Indiana
Hawkins, Marjorie Deane	<i>LAS</i>	89¾	Chicago
Hawkinson, Carl Otto	<i>AE (SS)</i>	74	Marquette, Kansas
Hawver, Paul Loren	<i>SS sp</i>	8	Decatour
Hayes, Earle Melville	<i>Agr</i>	32	Kings
Hayes, Edward Bean	<i>LAS</i>		Urbana
Hayes, James Raymond	<i>Bus</i>		Janesville, Wisconsin
Hayes, Ora Lee	<i>SS sp</i>		Urbana
Hayne, Walter Elliott	<i>EE</i>		Chicago
Hazen, Cecil Reeder	<i>Agr</i>		Champaign
Head, Glenn Lloyd	<i>SS</i>	8	Sciota
Headley, Francis Leo	<i>Agr</i>	70	Paris
Healey, George Warren	<i>LAS</i>		Rensselaer, Indiana
Healy, Fred Albert	<i>Agr</i>	104	Aurora

Healy, Verne	<i>Agr</i>	17½	Clarence
Heath, Dwight Frederick	<i>LAS</i>	66	Chicago
Heath, Edith Mary	<i>LAS</i>	101	Urbana
Heath, Lewis David	<i>Agr</i>		Oxford, Indiana
Heath, Monroe	<i>LAS</i>	45	Chicago
Heath, Trevor Morse	<i>Agr</i>	92	Toledo, Ohio
Hecker, Charles	<i>Mus sp</i>		Urbana
Hecketsweiler, Roy Thomas	<i>LAS</i>	53	Area
Heckler, Leo Chysostem	<i>EE</i>	38	Harvey
Hedgcock, John Franklin	<i>Agr</i>	116	Plymouth
Hedgcock, John Harrison	<i>Agr</i>	117	Plymouth
Hedgcock, Nellie May	<i>HSLAS</i>	68	Plymouth
Hedges, Bertram A	<i>LAS</i>	34	La Grange, Missouri
Hedrick, Edna May	<i>LAS</i>		Le Roy
Hedrick, George Samuel	<i>Agr</i>	69	Le Roy
Heegard, Thusnelda	<i>SS</i>		Elmhurst
Heeschcn, Richard George	<i>ChE</i>	38	Davenport, Iowa
Hegener, Archie Leo	<i>LAS</i>	34	Bluff Springs
Hegner, John Robert	<i>EE</i>	34	Stuttgart, Arkansas
Hein, Mary Rachel	<i>HSAgr</i>	45	Champaign
Hein, Mason August	<i>Agr</i>	33	Champaign
Heindel, John Harold	<i>AE</i>	74	Elgin
Heindel, Spencer Rehbock	<i>CE</i>	37	Stockton
Heineke, Paul Henry	<i>L</i>		Streator
Heinzelmann, Alfred Martin	<i>ChE (SS)</i>	113	Aurora
Helander, Linn	<i>ME</i>	137	Chicago
Helgeland, Lillie Isabel	<i>LAS (SS)</i>	106½	Elkhart
Heller, Henry Frederick	<i>Med</i>		Des Plaines
Helm, Harry Gray	<i>LAS</i>		Grayville
Helm, Herbert Clarence	<i>LAS</i>	76	Metropolis
Helmreich, Agnes Johanna Sophia	<i>SS</i>	7½	Crescent City
Helper, Kenneth Louis	<i>Agr</i>	34	Henry
Hemphill, Chester Abram	<i>Agr</i>	119	Jacksonville
Henderson, Alexander Swift	<i>LAS</i>	67	Chicago
Henderson, Frank Spoor	<i>EE</i>	94½	Sterling, Colorado
Henderson, James Bruce	<i>Agr</i>	127	Millers Ferry, Alabama
Henderson, John Charles	<i>ME</i>		Urbana
Henderson, Ted	<i>Agr</i>		Ridgefarm
Henle, Edward Joseph	<i>LAS</i>		Muscatine, Iowa
Henley, Margaret Dickey, A.B. (Earlham Coll.) 1914	<i>Lb</i>		Indianapolis, Indiana
Henn, Hildegard Anna Sarah	<i>HSAgr (SS)</i>	26	Toluca
Hennings, Elfreda Viola	<i>HSLAS</i>	60	Elgin
Henry, Mary Anne	<i>LAS (SS)</i>	100	Paloma
Henshie, Lura Mave	<i>LAS sp</i>		Decatur
Hensold, Harold Hartman	<i>Agr</i>	36½	Tonica
Henson, Margaret Emma Virginia	<i>Agr</i>		Urbana
Henson, Ray David	<i>L</i>	26	Johnston City
Hepburn, Mrs. M M	<i>Mus</i>		Gilman
Herbert, James John Michael	<i>LAS sp</i>	46	Chicago
Herdman, Margaret May, A.B., 1910	<i>Lb</i>	50	Winnetka
Herman, Ewald Emil	<i>ME</i>		Highland
Herman, Ralph Leroy	<i>EE</i>	108	Woodbine
Hermanson, Frank Alfred	<i>Bus</i>	65	Milford
Hess, Gaylord Ray	<i>SS</i>	107	Momence
Hess, Oral Vera	<i>HSLAS (SS)</i>	96	Sidney
Hester, Elizabeth	<i>Lb (SS) sp</i>	2	Delaware, Ohio
Hibbs, Jesse Branch	<i>LAS</i>		Murfreesboro, Tennessee
Hickey, Daniel Webster, Jr.	<i>EE</i>		Aurora
Hickman, James Burr	<i>Bus</i>	97	Ashville, North Carolina
Hicks, James Mason	<i>Asp</i>		Mapleton Depot, Penns.
Hicks, Otis Emory	<i>EE</i>		Gibson City
Hiedel, Leonard B	<i>Agr</i>	71	Waterloo, Wisconsin
Hiett, Harold C	<i>SS</i>	25½	Keithsburg
Higgins, Irma May	<i>HSLAS</i>	54	Urbana
Higgins, Margaret Elizabeth	<i>HSLAS</i>		Urbana
Higgins, Mary Marguerite	<i>HSAgr</i>	38	Joliet
Highberger, John Foster	<i>Agr</i>	38	St. Paul, Minnesota
Hilbert, John William	<i>Med</i>	37	Chicago
Hildreth, Leslie Marquis	<i>LAS</i>		Broadlands
Hill, Fanny Wilder, A.B., 1910	<i>Lb</i>	33	Champaign
Hill, Fred James	<i>Cer</i>	96	Harvard
Hill, Howard Rice	<i>Agr</i>		Chicago
Hill, James Edward	<i>Agr</i>	94	Mattoon
Hill, Lawrence Elias	<i>ME</i>		Chicago
Hill, Lucy Belle	<i>Mus</i>	62	Urbana
Hill, Muriel Mary	<i>HSLAS</i>		Urbana
Hill, Ormond Percy	<i>ME</i>		Urbana
Hill, Robert Earl	<i>L</i>		Champaign
Hill, Roger Edward	<i>LAS</i>	46½	Woodstock
Hill, Stanley, A.B., 1913	<i>SS</i>		Mattoon
Hill, Warren Elliott	<i>Agr</i>	77	East St. Louis
Hillard, Lyndal	<i>LAS</i>		Fairfield
Hills, David Avery	<i>EE</i>	4½	Evanston

Hills, Louis John	MSE	108	Joliet
Hills, Thirza Louise	HSAgr	31	Mattoon
Hilpert, Martha	HSAgr	32	St. Louis, Missouri
Hilsabeck, Mildred Eugenia	Mus		Windsor
Himmelreicher, Walter August	CE	36	Chicago
Himstedt, Ralph Ebner	LAS (SS)	69½	Boody
Hines, Lyle Wilbur	Bus	21	Peoria
Hinkle, Homer Marion	SS sp	24	Dongola
Hinkle, Mrs. Verna Ethel	SS		Dongola
Hinman, Robert Bruce	Agr	102½	Dundee
Hinman, Walker McConnell	LAS		Dundee
Hinrichs, Herbert Stassen	Agr	29	Joliet
Hinshaw, Amy	LAS (SS)	105	Harrisburg
Hinshaw, Joseph Howard, A.B., 1913	L	15	Harrisburg
Hinton, George Philip	ME	108	Maysville, Kentucky
Hinton, Stanley Winfield	Agr	23	Foosland
Hippard, Wesley George	MnE	37	Belleville
Hipple, Roy Everett	Agr	34	Waterman
Hirstein, John A.	Agr	35	Sumnerfield
Hirt, Edward George, Jr.	A	72	St. Cloud, Minnesota
Hirth, Laura Edna	HSAgr	79	Quincy
Hirtzel, Clara Lillie	LAS (SS)	101	Effingham
Hitchcock, Earl Wilkie	Agr	104	Hallowell, Kansas
Hitt, Agnes Virginia	HSLAS	94	Herrick
Hitt, Katherine	LAS	98	Chicago
Hitt, Mabel	LAS	70½	Herrick
Ho, Nai Ching	LAS (SS)	116½	Canton, China
Hobart, Clyde Monroe, A.M., 1913	SS		Urbana
Hodge, Clarence Richard	LAS		Oregon
Hodge, John Reed	AE		Carbondale
Hoehn, Beatrice Eva	SS	32	Carlinville
Hoehn, Fremont John	Cer (SS)	74	Carlinville
Hoehnke, Herbert William	AE		Sheboygan, Wisconsin
Hoerner, Frank A.	LAS (SS)	113	Peotone
Hoff, John LeRoy	SS	76	Ottawa
Hoffert, Anna Cathryn	LAS	99	Pekin
Hoffman, Aaron Andrew	Bus	37	Dwight
Hoffman, Arthur Christopher	Agr (SS)	138½	Knoxville
Hoffman, Louis Arthur	ChE	31	Harvey
Hoffman, Lucille Victoria	Agr		Chicago
Hoffman, Lynden Even	Bus	70	Harvey
Hoffman, Max Robert	ME		De Pue
Hoffman, Roy Albert	EE	74	Aurora
Hoffmann, George Herman	Bus	32	St. Louis, Missouri
Hogan, Harold Eugene	ChE	54	Lanark
Hoge, Hobart	EE		Chicago
Hohman, Elmo Paul	LAS	71	Nashville
Hohn, Harley Daniel	Agr		Sycamore
Hoit, Maurice Elon	Agr	104	Geneseo
Holaday, Kenneth Marion	Ch		Mattoon
Holecck, Albert Berard	L		Chicago
Holinger, Arnold Carl	AE	81	Chicago
Hollandsworth, Helen Margaret	LAS	32	Canton
Holland, Henry Walter	Agr	94	Highland
Hollis, David Preston	LAS	12	Urbana
Hollister, Noble Parker	Agr	123	Champaign
Holloway, Doris Jean	HSLAS	66	Detroit, Michigan
Holman, George Cecil	Agr		Tobias, Nebraska
Holmburger, Max, Jr.	ME	113	Chicago
Holmes, Albert Allen	SS	16	Augusta
Holmes, Charles Vernon	LAS	71	Manteno
Holmes, Laura Clark	HSAgr	31	West Chicago
Holmes, Oliver Wendell	EE	34	Greenfield
Holtz, Harry Stevens	AE	74	Sioux City, Iowa
Homrich, Leslie	SS	8	Galena
Honey, Myrtle Eveline	HSAgr		Dixon
Honnold, Loie	Agr		Kansas
Hoo, Te-Chun	MnE (SS)	16	Shin-Ning, China
Hood, Clifford Firoved	EE	108	Cameron
Hopkins, Eugene Cernfield	Agr	30	Yorkville
Hopkins, Gold Samuel	Bus	75½	Champaign
Hopkins, Samuel Curtis	Bus	30	Urbana
Horen, Louis	CE		Venice
Horimura, Hirosh	EE	32	Olita, Japan
Hormel, Dorothy Stewart	LAS	75	Wichita, Kansas
Hormel, Olive Dean	LAS	83½	Wichita, Kansas
Hornal, William	Agr	121	Champaign
Horney, Warren Rees	Agr	34	Colfax
Hornkohl, Siegfried Irving William	AE	72	St. Joseph, Missouri
Horton, Claude Edward	ME	48½	Dixon
Horwich, David	AE		Chicago
Hosfield, Percy Charles	CE		Faribault, Minnesota
Hosford, Susan Eunice	HSLAS	66	Geneseo
Hoskins, Leonard Cunningham	ME	36	E. Las Vegas, New Mexico

Hoskins, William, Jr.	LAS	99	La Grange
Hoskinson, Bruce Quin	SS	85	West York
Hostetler, Joseph Columbus	L	28	Decatur
Hostetler, William Benton	Bus		Decatur
Hottes, Flora Emily	LAS		Urbana
Houchens, Josie Batcheller, B.L.S., 1905, A.M., 1912	SS		Urbana
Houg, Orville Adlai	Bus		Dows, Iowa
Hough, Charles Francis	L	25	Danvers
Hough, Estella Daisy	SS	16½	Belleville
Hough, Lawrence Donald	A		Marcellus, Michigan
Hough, Waldern Henry	AE	76	Oak Park
Houghton, Lowell Curtis	Agr		Sheffield
Hoult, Charles Howard	LAS		Chrisman
Houser, Irma L.	LAS (SS)	75	Farmer City
Houston, Margaret	HSAgr	57	Chicago
Hovey, Howard Weston	AE		Kansas City, Kansas
Howard, Carl Gooch	Agr	33	Benton
Howard, Charles Gerard	LAS (SS)		Oakwood
Howard, Clara Eulalie	SS	13½	Benton
Howard, Mabelle Lorraine	HSAgr		Le Ray
Howe, Charles Ralph	Agr	82	Champaign
Howe, Josephine	HSLAS	8	Mansfield
Howe, Roger Faxon	Agr		Chicago
Howe, Sidney Peckham	Agr	39	Macon, Georgia
Howe, William Thomas	Agr	82½	Champaign
Howell, Grace Laura	LAS (SS)	81½	Lewistown
Howell, Paul J.	Bus		Beloit, Wisconsin
Howells, Mary Georgia	HSAgr		Staunton
Howells, Ruth Cound	LAS		Staunton
Howk, Charles Dean	LAS	94	Neoga
Hsieh, Chung	ME	8	Kirin City, China
Hsieh, Zen	EE (SS)	80½	Besung, China
Hsun, Ching Lee	LAS	25	Nan Chang, China
Hu, Gor Hsi	RCE	102	Canton, China
Hubbard, Aden Elden	SS	8	Avon
Hubbard, Homer Clinton	SS		Ida Grove, Iowa
Hubbard, Lawrence Reid	Bus	52	Auburn, New York
Hubbard, Marie Esda	Bus (SS)	99½	Hazen, Arkansas
Hubbard, Margaret Elizabeth	SS		Anna
Hubbard, Willis Wilkinson	A	76½	Beloit, Kansas
Hubbart, Curtis Clay, B.S., 1909	MnE (SS)		Rock Island
Hubbell, Arthur Palmer	LAS		Chicago
Hubble, Brownlee Martin	Agr		Jacksonville
Huber, Andrew Joseph	EE	30	Perryville, Missouri
Hudson, Edith Elizabeth	LAS	32	Chicago
Hudson, Glenn Evans	Agr		Sullivan
Huff, Byron Robert	LAS		Urbana
Huff, Harry J.	SS		Stackport, Iowa
Huff, James Orton, A.M., 1912	SS		Frederick
Huff, Marguerite Lydia	LAS	30	Urbana
Huffman, Eugene Stewart	Ch		Rockford
Hufford, Charles Thurman	Agr	72	Carmi
Hughes, Madeline	SS		Downers Grove
Hughes, Martin Collins	EE	66	Berwyn
Hughes, Walter Bertram	SS	8	Carbondale
Hughes, Mrs. Walter Bertram	SS	3½	Carbondale
Huggler, Lillian Frieda	HSLAS		East St. Louis
Hughitt, Anna Lue	LAS		Escanaba, Michigan
Huisken, Arthur Herman	ChE	106	Chicago
Huisken, Harry Arnold	Cer		Chicago
Hulburd, Hazel Emily	HSLAS	27	Cleveland, Ohio
Hulce, Ray Stillman, M.S., 1913	Agr		Urbana
Hull, Harter Barnes	SS	24	Cincinnati, Ohio
Hull, Sidney Marion	Ch	37	Montello, Wisconsin
Hultman, Ivar Nimes	ChE	49	Chicago
Hummeland, Ralph Wendel	CerE		Melrose Park
Humphrey, Arthur Gordon	LAS		Palatine
Humphrey, Kenneth Blaine	EE	75	Waterloo, Wisconsin
Humphreys, Robert Hatch	L		Atkinson
Hungerford, Charles Everett	MSE	97	Loda
Hunsley, Alice	HSLAS		Champaign
Hunt, Florence Jennie	HSLAS	87	Ridott
Hunt, Frank Sumner	Cer	59	N. Brookfield, Massachusetts
Hunt, Leslie Lyman	Agr	51½	Spartan
Hunter, Margaret	HSLAS		Chillicothe
Huntington, Homer Irving	Agr	68	Chicago
Hurdle, Ennis Carrol	EE		Mt. Sterling
Hurlbert, Verner William	AE		Robinson
Hurlburt, Helen Elizabeth	HSLAS	26	La Mesa, California
Husband, Robert Maurice	ME	102	Litchfield
Husson, Harry Lee	EE	37	Auburn
Husted, Guy Harold	Agr	93	Roadhouse

Husted, Lee Alfred	<i>Agr</i>	95	Roodhouse
Husted, Merle Raymond	<i>Agr</i>		Roodhouse
Hutchins, Marjorie	<i>Mus</i>	103	Urbana
Hutchinson, Henry	<i>Agr sp</i>		Langley Lodge, England
Hutchinson, Lawton Hargrove	<i>EE</i>	38	Little Rock, Arkansas
Hutchinson, Oliver Cromwell Kemp	<i>ME</i>	90	Menominee, Michigan
Huxtable, Ruben Peterson	<i>Agr (SS)</i>	20½	Kansas City, Missouri
Hyde, Edith, B.A. (<i>Ohio State Univ.</i>) 1908	<i>Lb</i>	33	Lancaster, Ohio
Hyndman, Robert, Jr.	<i>EE</i>	3	Cincinnati, Ohio
Hypes, Mrs. Cora Edna Jackson	<i>LAS</i>	7½¾	Urbana
Hypes, George William	<i>Agr</i>	76½	Poe, West Virginia
Hypes, James Lowell	<i>LAS</i>	76½	Urbana
Ide, Hiram Russell	<i>Agr</i>		Washington, D. C.
Ide, Lucile Mary	<i>HSLAS</i>	34	Mineral
Ihrig, Lester Werman	<i>CE</i>		Oshkosh, Wisconsin
Illick, Warren C	<i>Agr</i>	16½	Burlington, Iowa
Imes, Oliver Stann	<i>EE</i>	65	Macomb
Ingalls, Horace Ballou	<i>Agr (SS)</i>	63	Urbana
Ingels, Sherman	<i>Agr</i>	61	Lafayette
Ingram, Ralph Lindsay	<i>Agr</i>	2	Chicago
Ingwers, Alfred Henry	<i>AE</i>		Moline
Inness, Lucy Mabel	<i>SS</i>		Galesburg
Irick, Carl Cuthbert	<i>Med</i>		Pittsfield
Irish, Joe Elder	<i>Bus</i>	9	Oak Park
Irvin, Letha Patterson	<i>LAS</i>		Frankfort, Indiana
Irvin, Stanley Pieffer	<i>LAS (SS)</i>	93	Griffith, Indiana
Isaacs, Thomas Ralph	<i>Agr</i>	87½	Soreto
Iwig, Howard Philip	<i>Bus</i>		Peoria
Jackman, Charles Harold	<i>ME</i>	75	Elgin
Jackson, Anna Elizabeth	<i>LAS</i>		Champaign
Jackson, Ernest Theodore	<i>SS</i>	28½	Odin
Jackson, John Evans	<i>Bus</i>		Rocky Ford, Colorado
Jackson, Mabel J	<i>LAS (SS)</i>	110	Danville
Jackson, Thomas Henry	<i>Agr</i>		Champaign
Jacobs, Clifford D	<i>SS</i>	8	Trivoli
Jacobsen, Walter Herman	<i>Bus</i>	99	Urbana
Jacobson, Bernard Edwin	<i>Agr</i>	3	Chicago
Jacobson, Henry George M	<i>Agr</i>		Chicago
Jahr, Myra Bertha	<i>HSLAS</i>		Neillsville, Wisconsin
Jain, Ranjit Singh	<i>EE</i>	111	Delhi, India
James, Edward Allen	<i>EE</i>	110	Amboy
James, Harriet Lillian	<i>HSLAS</i>	41	Amboy
James, Helen Dickson, A.M., 1913	<i>Mus</i>		Urbana
James, Lenton Willis	<i>Agr</i>	92	Canton
Janes, Nellie	<i>LAS</i>		Kewanee
Jannotta, Francis Skiff	<i>Bus</i>		Oak Park
Janssen, Elmer Theodore	<i>Bus</i>	16	Sterling
Jarmulsky, Louis	<i>EE</i>	27	Maywood
Jarnagin, Robert	<i>L</i>	28	Shelbyville
Jarrett, James Bruce	<i>EE</i>		Danvers
Jarvis, Rowling	<i>EE</i>	85	Hinsdale
Jarvis, William Bancroft, Jr.	<i>L</i>		Chicago
Jefferson, John Benjamin	<i>ME</i>	109½	Chicago
Jenkinson, Harry Samuel	<i>Med</i>		Arlington Heights
Jenkinson, Robert Edwin	<i>LAS</i>	9	Arlington Heights
Jenks, Philip Dorsey	<i>Ch (SS)</i>	5	Indianapolis, Indiana
Jenner, Lawrence Tenney	<i>Bus</i>		Evansville, Indiana
Jennings, Alma Irene	<i>SS</i>	5	Champaign
Jennings, Carson Gary	<i>CE</i>	75	Carlinville
Jennings, Grattan Gustavus	<i>Agr</i>		Champaign
Jennings, Leman	<i>Agr sp</i>		Abingdon
Jennings, Mary Iona	<i>HS Agr</i>		Champaign
Jennings, Walter Wilson	<i>LAS (SS)</i>	112	Champaign
Jensen, Jorgan Edward	<i>EE</i>	10	Chicago
Jensen, Milton Owen	<i>Bus</i>	94½	Chicago
Jervis, Florence May	<i>Mus</i>	66	Champaign
Jessen, Clifford Twistedgaard	<i>LAS</i>		Alto Pass
Jessen, Hubert	<i>Agr</i>	100	Alto Pass
Jewett, Eleanor Rountree	<i>Agr</i>		Chicago
Jewett, Fred Allen	<i>CerE</i>	68	Burlington, Kansas
Jez, Leo Charles	<i>Agr</i>	116½	Chicago
Jobst, Herman Robert	<i>A</i>	31	Omaha, Nebraska
Jockisch, Anna Zelma Elizabeth	<i>HSLAS</i>	28	Beardstown
Johns, Donald Charles	<i>MnE</i>	62	Danville
Johnson, Carl Eugene	<i>A</i>	42	Chicago
Johnson, Edna Louise	<i>LAS</i>	39	Brimfield
Johnson, Elmer Walfred	<i>CE</i>	48	Batavia
Johnson, Elfreth George	<i>Agr</i>	46	Medora
Johnson, Everett Louie	<i>Agr</i>		St. Charles
Johnson, Floyd Henning	<i>Bus</i>		St. Charles
Johnson, Gertrude Emily	<i>Mus sp</i>		E. Galesburg
Johnson, Harold Sucose	<i>A (SS)</i>	120	Chicago
Johnson, Harry Julius	<i>Agr</i>	39	Gerlaw

Johnson, Helen Margaret	Bus	34	Plymouth, Indiana
Johnson, Joseph Benjamin	ME		Harrisburg
Johnson, Julius Nicholas	Bus	34	Elgin
Johnson, Louis Samuel	Agr	103	Champaign
Johnson, Marcus Leonard	CE	58	Park Ridge
Johnson, Mary Fern	LAS	66	Urbana
Johnson, Maurice Carl	ME	75	Omaha, Nebraska
Johnson, Maynard Wayne	Bus	78	Casey
Johnson, Ralph Benjamin	ME		Joliet
Johnson, Robert Eugene	EE	62	Lawrenceburg, Kentucky
Johnson, Walter John	Med		Chicago
Johnston, Donald Compton	Bus		Charleston
Johnston, Dwight Irwin	Bus	63	Seymour
Johnston, Florence Ruby	HSLAS (SS)	92	Champaign
Johnston, Lillian Ruth	HSLAS		Champaign
Johnston, Mabel	HSLAS		Carlyle
Johnston, Paul Evans	Agr	23	Milton
Jones, Allen John	Agr		Ridgefarm
Jones, Alwin August	Bus	27	Dewey
Jones, Clifford Crouch	Agr	118	St. Louis, Missouri
Jones, David Robert	CE	75	Streator
Jones, Dudley Emerson	A	36	Little Rock, Arkansas
Jones, Earl Jesse	Bus	31	Gilbert, Iowa
Jones, Florence Dorthea	HSLAS		Raymond
Jones, Frances Beulah	HS Agr (SS)	31	Champaign
Jones, Frank William	Agr	34	Bloomington
Jones, John Ellis	Bus		Chicago
Jones, J Russell	Bus	66	Springfield
Jones, Leola	Mus sp		Perrysville, Indiana
Jones, Marian Lucile	HS Agr	18	Ft. Smith, Arkansas
Jones, Milton Doerr	EE	115	Raymond
Jones, Orion Chester	Med	45½	Redmon
Jones, Paul Clifford	EE	71	Henry
Jones, Paul Erastus	A	134	Claremore, Oklahoma
Jones, Robert Taylor, B.S., 1912	Mus		Urbana
Jones, Tennyson Calvin	LAS		Glencoe
Jones, Walter Ortis	Bus	32½	Champaign
Jones, William Robert	Agr sp	32	Kirkland
Jordan, Ray Lewis	A	34	Luverne, North Dakota
Jordan, William McKinley	Agr sp		Carroll, Ohio
Joseph, Effie Catherine	HSLAS		Hayden, Indiana
Joyner, Mildred	LAS	79	Harrisburg
Judd, Elizabeth Gladys	HS Agr		Champaign
Judd, Mildred Marie	HSLAS	22	Champaign
Judson, Frank Monteath	Bus	35	Aurora
Jue, Jook Hing	Bus	92	Canton, China
Juergens, Robert Edward	REE		River Forest
Julian, Scott Millholland	Agr		Little Rock, Arkansas
June, Marjorie Marie	HSLAS	96	Belvidere
Jungkunz, Louis Frederic	Bus	66	Freeport
Kaar, Ruth Amanda	LAS	91	Princeton
Kadinsky, Max Joseph	RCE	77	Chicago
Kaempfer, Fred William E	AE		Chicago
Kahlert, Thomas Debenham	Agr	67½	Carlyle
Kaiser, Karl John	Med	15	Aurora
Kaiser, Olive May	SS	4	Downing, Missouri
Kalthoff, Frederick Caspar	AE		Chicago
Kamm, Rufus Maurice	Ch	68	Highland
Kamm, Wilbur Fred	LAS (SS)	57½	Highland
Kamp, Henry Wilbur	LAS	32	Watscka
Kane, Robert Clair	EE	71	Warren
Kane, William Harold	ChE	27	Wellsville, New York
Kang, Wai	ME	36	Hong Kong, China
Kantor, James	EE	80	Chicago
Karkow, Conrad Hansen	LAS		Chicago
Karn, A. H.	SS		Grahamsville, Ohio
Karr, William Malry	Bus		Flora
Karraker, Alvah Hugo	Agr	79½	Dongola
Karraker, Guy Wilford	SS	130	Dongola
Kasbeer, John Harold	Bus	40	Normal
Kasserman, Homer Frank	L		Newton
Kasten, William Henry	Agr	52	Schenectady, New York
Kathinsky, Francis	Cer	16	Chicago
Katz, Melvin Louis	Bus		Mattoon
Katzenberg, Herman Stanley	AE (SS)	64	Chicago
Kaufman, Willard Seaton	A		Richmond, Indiana
Kaufmann, Adolph Henry	ChE	36	Chicago
Kaup, George Albert	Agr	16	Chicago
Kawamoto, Tane Jonathan	EE	98	Osaka, Japan
Kayser, Clarence Samuel	AE		Decatur
Kayser, Laurence Maurice	AE		Decatur
Keach, Walter Moore	Agr	65	Crothersville, Indiana
Keagy, Abraham Reuel	ME (SS)	86	Hot Springs, Arkansas

Keatts, Rolla Merl	ME	Maroa
Keefer, Ruth Farwell	SS	130½ Amboy
Keen, Frances Ford	LAS	98 Pueblo, Colorado
Keener, Oro Sylvester	Ch	81 Macomb
Keese, Albert William	Cer	105 Litchfield
Keese, Homer Goldsmith	Cer	37 Litchfield
Keese, William John	LAS	79 Ishpeming, Michigan
Kehlor, James Malcolm	ME	78½ Kenosha, Wisconsin
Keiffer, Lawrence Raymond	EE	Robinson
Keigley, Claire Taylor	ME	97½ Ames, Iowa
Keith, Genevieve Emma	LAS	Winckley
Keitoku, Sakai	ChE (SS)	50 Fukushima, Japan
Kell, Sherman Little	SS	53 Kell
Keller, Arthur Raymond	CE	81½ Mt. Carmel
Keller, Florence	LAS	108 Ft. Wayne, Indiana
Kelley, Henry Phillips	Agr	61 Champaign
Kelley, Iva	LAS	Urbana
Kelley, Mae Elizabeth, A. B. 1913	SS	130½ Loda
Kellogg, Amelia Lucinda	LAS	117 Aurora
Kellogg, Samuel Adams	Agr	104 Wheaton
Kelly, Everett Clyde	Med	33 Chillicothe
Kelly, Fred Hanford	L	29 Mattoon
Kelly, Henry Eli	CE	Charleston
Kelly, Jessie Maurene	HSLAS	Atlanta
Kelly, John Thomas	ME	Oak Park
Kemp, Arnold Raman	Agr	47½ Waynetown, Indiana
Kendall, Mary Lilly	LAS	22 Farmer City
Kennedy, Henry Sherwood	Agr	Washington, D. C.
Kennedy, Kaywin	LAS	33 Minonk
Kennedy, Luther Eugene	SS	130 Springfield
Kenner, Byron Florence	ME	94½ Pasadena, California
Kennett, David Herman	CE	37 Milroy, Indiana
Kenney, Myrtle	SS	6½ Carbondale
Kensel, Richard Reuben	Mus sp	Oshkosh, Wisconsin
Kenshalo, Ralph	L	28 Fairfield
Kent, Everett Frank	Agr	42 Gridley
Kent, Horace Ellsworth	CE	Urbana
Ker, Lorraine Margaret	LAS	Morgan Park
Kern, Alfred Eidmann	L	Belleville
Kern, Florence Ellen	HSAgr	29 Champaign
Kern, Lowell Davidson	SS	7½ Champaign
Kern, Vernon Harlow	Agr	80½ Gays
Kernall, Mrs. Morris Johnson	HSAgr	133 Urbana
Kerner, Julius Caesar	ME	72 Cicero
Kernoll, Russell Twist	AE	Rochester
Kerr, Lyda Kathryn	LAS	Urbana
Kerr, Ralph	Agr	Urbana
Kerr, Volney Applebee	ME	4 Wellsville, New York
Kesl, Joseph, Jr.	AE	Edwardsville
Ketch, James Moss	EE	Decatur
Keusink, Helen Bertha	LAS	27 Champaign
Kewley, Robert James	LAS	Santa Monica, California
Keyes, Fanshawe Martin	LAS	Chicago
Kibbe, Leslie Arthur	AE	107 Wheaton
Kichlu, Kunja Behari	EE	Manshi Bagh, India
Kidd, Lilace Mazoe	LAS sp	11 Astoria
Kiessig, Paul Peter	Agr	37 Berkeley, California
Kile, Laura LaRhue	LAS	Rockford
Kimmell, Levett	Agr	32 Chauncey
Kincaid, Ruth Moore	HSLAS	36 Former City
Kiner, Howard Dickens	L	Geneseo
King, Burton Eldred	Agr	Plymouth
King, DeWitt Leonard	ME	83 Tonica
King, Edward Herschel	Bus	74½ Lincoln
King, Edward Luther	Agr (SS)	59½ Divernon
King, James Xenophon	Agr	Richmond, Indiana
King, Vincent Paul	Agr	Indianapolis, Indiana
King, Vivian	HSLAS	70 Richmond, Indiana
Kingsley, Wendell Lathrop	Agr	32 Chicago
Kinney, Edward Clinton	EE	Riverdale
Kinsey, Alfred Richardson	Agr	29 Centuria
Kinsey, Jack	Agr	26½ Mackinaw
Kinsey, Jessie	HSLAS	6 Westfield, Indiana
Kinzel, Zadah Zimmerman	LAS	Oakland
Kipp, John George Estill	EE	38 St. Louis, Mo.
Kirby, Harry Anton	EE	37 Indianapolis, Indiana
Kirby, Wayne Isaac, B. S., 1914	LAS	Decatur
Kircher, Armin Martin	CE	83 Chicago
Kircher, Helmuth Julius	Agr	116 Chicago
Kirchmer, May Meresa	HSAgr	St. Louis, Missouri
Kirk, Bertha May	LAS (SS)	38 Decatur
Kirk, Haddon Spurgeon	L	Belleflower
Kirk, Heagle James	LAS	Decatur

Kirkland, Archibald Farley	A (SS)	111	Cambridge
Kirkpatrick, Helen Marie	HSLAS (SS)	83	Urbana
Kirkpatrick, Ross John	Agr		Sikvis
Kirkpatrick, Sidney Dale	ChE	76½	Urbana
Kiser, Helen Mynette	HS Agr	32	Champaign
Kisselburg, Bert Mills	Agr	69	Chicago
Kittermaster, Dougall Anthony	AE	89	Glencoe
Klamt, Robert Herman	Agr	64	Chicago
Klank, Frances Grace	LAS	66	Champaign
Klehm, George Charles, Jr.	Agr	105	Arlington Heights
Klein, Carroll Aaron	A	71	Davenport, Iowa
Klein, George Minnie, A. B., 1914	SS		Urbana
Klein, Gordon	Cer	2	Urbana
Klein, John Leo	Bus		Omaha, Nebraska
Klein, Joseph Mathais	Med		Pana
Klein, Nancie	LAS	19½	Urbana
Kleinbeck, Augustus Gustave	Ch		Litchfield
Klemme, Vivian Gertrude	Mus	54	Dows, Iowa
Klindworth, Mildred Louise	LAS	39	Philo
Kline, Arthur LaVerne	Agr		Chicago
Kling, Carl Lawrence	CerE		Dixon
Klingler, Roland John	L		Lead, South Dakota
Klink, William Lee	Bus		Cerro Gordo
Klippel, Gustav Chapin	ChE	51½	Urbana
Klopp, Charles Gorr	ME	75	Streator
Kloppenberger, George Joseph	A		Springfield
Klotzsche, Bayard Taylor	Agr		Urbana
Klotzsche, Bessie May	LAS		Urbana
Klutts, George Madison	Agr		Childress, Texas
Knapp, Lloyd Dunaway	CE	113	Ottawa
Knapp, Lucia Bradford	Agr sp		Duxbury, Massachusetts
Knappenberger, Harry Farrar	A	133	Macomb
Knappenberger, John Meredith	A	85½	Kansas City, Missouri
Knemeyer, Edward Franz	A	141½	Mason, Nevada
Knight, Ewart Broughton	Agr		Chicago
Knight, Francis Putman	Agr		Oklahoma City, Oklahoma
Knight, Herbert Alfred	ChE		Oak Park
Knight, John Herbert	Agr		Beardstown
Knight, Paul Kenneth	Bus	47	Wabash, Indiana
Knobloch, Thomas Adolph	Agr		Belleville
Knoche, John Christian	Agr	31	Onarga
Knodle, Cary Lee	ME	96	Elgin
Knoebel, Wilbert George	A	105½	Highland
Knowlton, Elizabeth, A. B., 1914	Mus		Urbana
Knowlton, Miriam, A. B., 1914	Mus		Urbana
Knox, Harry Gaylord	LAS	41	LaFayette, Indiana
Knudsen, Niels Alfred	AE	42	Urbana
Kobe, Marshall Eugene	L		Detroit, Michigan
Koher, Edgar Irving	A		Waterloo, Iowa
Kobylanski, Joseph Ludwick	AE	112	Chicago
Koch, Charles Edward	ME	109	Danville
Koch, Harvey Charles	ME	133	Cloquet, Minnesota
Koebele, Cornelius Walter	CE		Chicago Heights
Koehler, Robert A C	Agr		Chicago
Koepke, Herman Frank August	CE		Chicago
Kohl, Justin Ferdinand	Bus	31	Centralia
Kohl, Rowena Agnes	LAS		Centralia
Kohn, John Louis	Bus	29	Elgin
Koier, Grace Amalia	SS	2	Chicago
Kolar, George Franklin	CE		Chicago
Koll, Henry Michael	EE	101	Chicago
Kohner, William Conrad	Agr	23	Waterloo
Koptik, Bohumil James	Agr	33	Chicago
Korth, Frieda Elizabeth	LAS	68	Champaign
Koupal, Agnes Rose	HSLAS	62	Crown Point, Indiana
Kouyoumjian, Garbaret Hovanes	EE	60	Troy, New York
Kraeckmann, Arthur Endres	Agr	72	Chicago
Kraft, Reynold Rudolph	MnE		Oak Park
Krane, Leonard Judah	AE	74	Chicago
Kratz, Elwin Valentine, M. S., 1913	A		Champaign
Kratz, Ethel Gyola, A. B., 1910	Lb	12	Champaign
Kratzenberg, Edwin John, Jr.	EE		Chicago
Krauel, Philip Leone	ME		Champaign
Krauss, Harold Frederick	Agr		Maywood
KreaSan, Shirley Genevieve	Mus	21	Champaign
Krebs, Wilbur Edward	L	28	Belleville
Kreider, Paul Gates	LAS		Springfield
Kreidler, Chester Jamison	LAS		Oak Park
Kreigh, Elie Spencer	ME	74	Springfield
Kreiling, Robert Graham	Ch	28	Chicago
Krieger, William Enoch	Bus		Peoria
Kriegl, Otto	ME sp		Innsbruck, Austria
Kriewitz, John Gustav	Agr	32	Chicago
Kritzer, Richard Walter	Bus	70	Chicago

Kroeschell, Roy Sittig	ME	13	Winnetka
Kromer, Carrie Adelaide	LAS	99	Elgin
Krueger, Kurth Carl	LAS	3	La Salle
Krueger, Otto Arthur	AE	42	South Bend, Indiana
Krug, Louis Gustave	ChE	62	Chicago
Kuhlman, Lloyd	Agr		Beardstown
Kuhn, Wilfred Henry	CE	107	Chicago
Kuhnen, Proctor George	CE	73	Dixon
Kuhns, John Christian	EE	119	Argenta
Kupper, Walter Jacob	Agr	55	Peoria
Kurt, Leo Peter, Jr.	RME	72	Champaign
Kurtzrock, Edward Valentine	LAS		Dixon
Kyle, George Lane	EE	110	Chicago
Lacey, John James	Agr	294	Elwood
Lackey, Kate	LAS	79	Lawrenceville
Lacy, Ralph Wilson	Bus		Knoxville
Ladd, William Stanton	Agr	53	Taylorville
Ladehoff, Arthur Dellef Henry	AE		Clinton, Iowa
Lafferty, George Gustavus	SS	364	Galesburg
Lafferty, John Samuel	AE	96	Los Angeles, California
La Frenz, Grace Etheridge	LAS	96	Bushnell
Lagergren, Gustof Petrus	A	116	Morgan Park
Lagorio, Anthony Powers	SS	85	Chicago
Laing, Walter A	Agr	30	River Forest
Lamb, Hallie Eunice	LAS	30	Champaign
Lamb, John, Jr.	Agr		Worden
Lambert, Ward Louis	SS	8	New York City
Lambroff, Gregory Vassileff	EE	20	Madison
Lamkins, Lloyd E	Agr	67	Urbana
Lampert, Florian, Jr.	AE		Oshkosh, Wisconsin
Lanan, Guy	Agr		Kingston
Lancaster, Ruth Ellen	LAS	64	Maywood
Landon, George	LAS		Chicago
Landstrom, Adolph Walter	ChE	364	Chicago
Lane, Jeannette Barry	SS		Buffalo, New York
Lang, Herman Wellington	LAS		Chicago
Lang, Le Roy	LAS		Urbana
Lange, Harry Wilson	Bus	7	St. Louis, Missouri
Langlois, Henry Louis	SS	6	Kankakee
Lanier, Russel D Lyon	RME	103	Birmingham, Alabama
Lanquist, Ada May	SS		Chicago
Lansche, Oral Albert	EE	79	Brighton
Largent, Jess Charles	AE	76	Champaign
Larson, David Thorsten	LAS	43	Elgin
Larson, Irving Nicholas	AE	75	La Porte, Indiana
Larson, John Carl	Bus		Princeton
Larson, Lambert Linus	LAS		Mazon
Larson, Raymond Victor	Agr	60	Henderson, Minnesota
Larson, Walter Nels	MSE		Poxton
Laskin, Louis James	A	106	Chicago
Lassmann, Meta Irma	SS	8	Magnolia
Lathrop, Carlton Page	Agr	70	Chicago
Lathrop, William Grant	LAS		Sumner
Latz, Irma Ada	HSLAS	122	Highland
Laubinger, Roy Norman	Med		Chicago
Laugman, John Oscar, B. S., 1900	SS	5	Newark
Lauher, Jean Edward	CE		Hot Springs, Arkansas
Lauphit, Tse	Agr		Shanghai, China
Lauritzen, Marion Marie	LAS		Chicago Heights
Lauterbach, Edward George	Agr (SS)	101	Bushnell
Law, Litta Marie	SS	74	Streator
Lawler, Francis Columbus	EE	37	Greenfield
Lawler, Thomas Joseph	AE		Greenfield
Lawless, Mary Jane	LAS	664	Carthage
Lawnin, Nelson	ME	75	Edwardsville
Lawrence, Charles Henry	Agr		Woodstock
Lawrence, Edgar Alfred	CE	67	Chicago
Lawrence, Ralph E	A	37	Ripon, Wisconsin
Lawrence, Roland Hall	ME	37	Chicago
Lawrence, Roy	LAS		Robinson
Laws, Joel William	Agr sp	70	Donnellson
Lawson, Everett Eugene	Agr sp		Barry
Lawson, Mary Maria	LAS	95	Sidney
Lawton, Bradley Cleaver	LAS	904	New York City
Lawyer, Joseph Dale	L	23	Tennessee
Lax, Louise Catherine	Mus		Springfield
Leach, Mac E	LAS	63	Urbana
Leach, Paul Jackson	Agr	914	Macomb
Leatherman, Marian, A. B. (Cornell Univ.), 1907	Lb	45	Pittsburgh, Pennsylvania
Leavens, Arthur Bowen	AE	114	Kansas City, Missouri
Ledgerwood, Leroy William	AE	804	Springfield
Lee, Alfred Chang	CE (SS)	39	Changsha, China

Lee, Arthur	A		Hudson, Wisconsin
Lee, Charles Yu	Bus (SS)	2	Honan, China
Lee, Ellena	HS Agr	81	Reynolds
Lee, Izora	HS Agr		Reynolds
Lee, Liang	MnE (SS)	16	Hunan, China
Lee, Tao Nan	Bus		Nanking, China
Lee, Tsz-Sien	CE		Ho-yon City, China
Leeming, Tom	Bus		Chicago
Leete, Lorraine	LAS		Chicago
Leete, Marion Elaine	LAS		Chicago
LeeToma, Esther EuMoi	LAS		Honolulu, Hawaii
Leggitt, Frank	Agr	40½	Urbana
Leggitt, Fred William	Agr	29	Urbana
Legrand, Maude Elizabeth	SS	7	East St. Louis
Lehenbauer, Philip Augustus, Ph.D., 1914	SS	20½	Hannibal, Missouri
Lehman, Ellery Edmund	Agr		Altamont
Lehman, Lewis Harry	CE	32	Mattoon
Lehman, Ruth Townsend	HSLAS	34	Millington
Lehmann, Gertrude Emma	HSLAS (SS)	94	Berne, Indiana
Leibls, Roy Walter	A	72	Des Moines, Iowa
Leighty, Wayne Snyder	Agr	68	Billet
Leist, Claude	LAS		Paris
LeKander, Roy Edward	CE	69	West Chicago
Lekberg, Carl Helge Samuel	EE	108	Chicago
Lemmon, Edgar Guy	LAS	57	Roodhouse
Lemp, John Frederick	ChE	58	Alton
Lendman, Alfred Nohe	EE	37	Sterling
Lenhart, Norman Joseph	Bus	67	Mattoon
Lentz, Clarence Alonzo	LAS	64½	Anna
Lenz, Andrew Henry	EE (SS)	75	Quincy
Lenz, Charles Albert	Med		Gilman
Lenzen, Aloysius Francis	ChE	34	Peru
Lenzing, Chester William	Ch	70	Chicago
Leo, Shoo Tze	Ch	39½	Puchi, China
Leonard, Frank Bonner, Jr., A. B., 1912	L	22	Champaign
Leonard, Gladys Adeline	LAS	97	Savanna
Leonard, William Nathan	Agr	95	Anna
Leopold, Roland Eugene	L	56	Bellerville
Lerch, Edward	AE	36½	Rock Island
Leslie, Madge Campbell	LAS		Pittsfield
Lethen, Theodore Hubert	Bus	27	Chicago
Letman, John S	LAS sp		Sheffield, Jamaica
Lett, Hamlet Harrison	Agr		Washington, Indiana
Leverenz, Arthur Charles Gustav	ME	103	Elgin
Levey, Harold Alvin	LAS		New Orleans, Louisiana
Levin, Emma	SS		Chicago
Levitt, Russell	EE		Sailor Springs
Lewis, Arthur Lee, B.S. (Ewing Coll.)	Agr (SS)	8	Benton
Lewis, Arthur Warfield	Agr		Harrisburg
Lewis, John Taylor	AE	37	Rockford
Lewis, Katherine, A.B., 1912	Lb		Chicago
Lewis, Louise Madolin	LAS sp (SS)		Champaign
Lewis, Thurlow Girard	L	57	Benton
Lewis, William Henry	SS	38	Granite City
Li, Szu Kuang	Bus		Tientsin, China
Liang, Chuan Ling	Bus		Tai An, China
Liang, Tu Hung	Agr	95½	Washington, D. C.
Liang, Yeng Tsung	Bus		Kirin City, China
Libman, Anna	LAS		Chicago
Libman, Earl Emanuel	CerE	69	Chicago
Lichter, Bernard Vincent	AE (SS)	38	Chicago
Lidster, Homer Edward	Agr	38	Chicago
Liedel, Russell Brooke	L	37	Springfield
Liggett, David Carl	SS	128	Camp Point
Liggett, Irene Lillian	LAS	63	Camp Point
Light, Curtis Roy	CE	107	Brook, Indiana
Limerick, Honore Lucile	SS	15	Galatia
Lin, Thian-Kitt	Bus	33½	Canton, China
Linbarger, Silas Carl	CerE	107	Champaign
Lincoln, Clovis Ward	ME	110	Rock Falls
Lindberg, George Isadore	ME (SS)	112	Princeton, Michigan
Lindeberg, George Leonard	A	37	Chicago
Linder, Grace	HSLAS	110	Charleston
Linder, Sven Cyril	Cer	62	Chicago
Linderoth, Samuel Joseph	AE	40½	Chicago
Lindley, Ida Hubbard	LAS	94	Urbana
Lindmark, Edward Emanuel	Cer (SS)	56	Sycamore
Lindsay, Hazel May	SS	5½	Oregon
Lindsay, Horace Willard	EE	68	Rockford
Lindsay, William Carlyle	EE		Lexington
Lindsey, Charlie Frank	Med	28	Princeton, Missouri
Lindsey, George Heath	EE	112	St. Louis, Missouri
Lindsey, John Royer	Agr	33	Urbana

Lindsey, Leon Mason	ME	32	Onarga
Lindstrom, Stanley Edwin	A	59	Richmond, Indiana
Lingenfelder, Cleo J	LAS		Altoona, Iowa
Link, Hilah Jane	LAS	94	Champaign
Linnard, Elmer W	Agr	33	Peotone
Linnear, Henry Wilson	ME		Lake Bluff
Linnell, Carrie Edna	LAS	52	Kellys, North Dakota
Linsley, Clyde Maurice	Agr (SS)	103½	Fairfield
List, Raymond Lord	Bus	24	Belvidere
Little, Adelbert Dudley	AE	43	Genoa
Little, Allen	Agr		Normal
Little, Charles Reeves	Bus	69	Duluth, Minnesota
Little, Ethel Esther	LAS	88	Champaign
Littleton, Harry Matthew	LAS sp		Harrison, Arkansas
Liu, Nai-Yu	Bus		Foohow, China
Lively, Carlos Alciun	LAS		Oblong
Livengood, Leslie Parker	Bus sp (SS)	6	Danville
Livergood, Alvah Edmund	Cer		Stonington
Livesay, Ruth Flagg	LAS	65	East St. Louis
Livingston, Albert	MnE		Rock Island
Lloyd, Thomas Harold	Agr	99	Girard
Locke, George Ferguson	Agr		La Salle
Loetterle, Winifred Christine	SS	6½	Mt. Pulaski
Logan, Arthur Charles, Jr.	Med	18	Washington, D. C.
Logan, Frank Allyn	Bus	31	Paris
Logsdon, Joseph Ezra, Jr.	Agr	42	Shawneetown
Lohmann, Lewis Edward	LAS		Pekin
Loing, Fern Marguerite	LAS	110	Belvidere
Long, John Oras	LAS	70	Watseka
Long, Leonard Franklin	ChE		Tonica
Long, Ruth Ida	LAS		Watseka
Longueville, Joseph Charles	LAS (SS)	121½	Dubuque, Iowa
Loomis, Arthur Tull	Agr	106	Dallas City
Loos, Alfred John	SS		Greenwood, Wisconsin
Lopez, Camilo Rafael	A		Chicago
Lotz, Harold Benjamin	AE	75½	Madison, Indiana
Love, Beryl Franklin	LAS		Danville
Love, Clifford Sharon	Agr	66	Sidney
Love, Harry Halme	LAS		Newton
Love, Mary Elizabeth	LAS	41	Urbana
Lovell, M McDonald	A	33	Chicago
Lovewell, Gladys	LAS		Chicago
Low, Apan Paul, A.B. (Stanford Univ.) 1914	AE		Honolulu
Lowe, Ethelbert Coke	L	16	Robinson
Lowe, Wayne Marsh	ChE		Chicago
Lowman, Charles Elliott	Agr	60	Lanark
Lowry, Bessie	LAS	33	Lead, South Dakota
Lu, Chi Tsing	MnE (SS)	74	Kanchow, China
Lucy, Bennie Hebron	Agr		Helena, Arkansas
Ludlow, Helen	LAS		Paxton
Ludvik, Benjamin Edward	LAS	65	Chicago
Ludwig, Ethel Lenore	HSLAS	32	St. Louis, Missouri
Ludwig, Lester John	Bus	67	Ottawa
Lueder, Roy Moore	AE	37	Cherokee, Iowa
Lumley, Harold McLean	Agr	67½	Urbana
Lumley, Leslie Robert	Agr	68	Urbana
Lummis, Irwin Lytle	ME	37	Quincy
Lummis, Merle Francis	LAS	75	Quincy
Lund, John Virtus	CE	70	Elgin
Lundberg, Bruce Gurler	Agr	20	De Kalb
Lundberg, Henry Gurler	Agr		De Kalb
Lunde, George Richard	Agr	66	Elgin
Lundeen, Curt Carl	AE	37	Rock Island
Lundgren, Andrew Victor Theodor	AE	94	Edgar, Nebraska
Lundgren, Floyd Edward	EE		Lostant
Lundgren, Frederick Gunard	ME	110½	Chicago
Lundin, Roy Simeon	Agr	107	Chicago
Luney, Ray Timothy	L	57	De Kalb
Lungren, Arthur Nathaniel	ME	37½	Aurora
Lungren, Edgar Emmanuel	ChE	94	Aurora
Lurie, Sidney Joseph	EE	44	Chicago
Lusk, Genevieve Aron	HS Agr	33	Quincy
Lutes, Gifford W	A		Lutesville, Missouri
Lutz, Robert Stookey	EE	110	Decatur
Lyman, Lewis Thornton	Agr	87	Kapoho, Hawaii
Lyman, Mary Agnes Adelaide	LAS		Champaign
Lyman, Richard Dana	Agr	154	Chicago
Lyman, William Elias	SS		Des Moines, Iowa
Lynch, Margaret	HSLAS		Urbana
Lynch, Virginia Esther	LAS		Rockford
Lynn, John Robert	A	63	Greensburg, Indiana
Lyon, John Boyd	Cer	70	La Harpe
Lyon, William Ranft	LAS		Riverside

Lyons, Bernard Marion	LAS		Pontiac
Lyons, Carrie Fay	HSLAS	69	Urbana
Lyons, Hazel Sibyl	HSLAS	69	Urbana
Lyons, Oscar Ivan	ME		Hoopeston
McAdams, May Elizabeth	Agr sp	66	Chicago
McAfee, Leo Gay	Bus	72	Springfield
McAllister, Ivorine	LAS	10	St. Louis, Missouri
McArdle, Montrose Pallen	A	25	St. Louis, Missouri
McAndrew, William	SS	8	Vincennes, Indiana
McBride, Charles Bernard	CE	33	Perryville
McBride, Ralph	AE	30	Monmouth
McBride, Wesley Ray	Agr		Elgin
McCabe, Lester Thomas	Agr	29	Ransom
McCall, Alice Ruth	LAS		Kenosha, Wisconsin
McCall, Sallie Jennie	SS sp		Decatur
McCammon, Martha	LAS		Urbana
McCandlish, Fred Raymond	Agr		Toledo
McCarroll, James Shipp	Agr		Owensboro, Kentucky
McCart, John Lee	CE	5	Fort Worth, Texas
McCarthy, Frank William	LAS	62	Washington, D. C.
McCartney, Ward Bishop	ME		Elkhart, Indiana
McCaskill, Lyman Clauson	Agr		Taylorville
McCaughey, William Martin	Bus	33	Chicago
McCauley, Charles Hartman	A	116	Chicago
McClellan, Kenneth Butler	Agr	41	Chicago
McClelland, Charles Benjamin	SS	13½	Venice
McClelland, Miles John	A	68½	Boise, Idaho
McClenkin, Justus Logan	Agr		Morning Sun, Iowa
McCloud, James Forsyth	Bus	35	Sheldon
McClugage, Harry Bruce	LAS (SS)	100	Peoria
McClure, Adelle Elizabeth	Mus	21	Atlanta
McClure, Winifred Leo	HSLAS	82	Chrisman
McClurkin, Justus Logan	Agr		Morning Sun, Iowa
McColley, Carrie Lucile	HSLAS	96	Shelbyville
McConn, Prudence Emily Pratt, A.B. (Univ. of Minn.) 1905	SS		Urbana
McConnel, Marian	HSLAS		Danville
McConnell, Marvin Greer	Bus	16	Chicago
McConoughey, Aden Davies	SS	5	Chicago
McCord, Fitch Landis	Agr		Paris
McCormack, Joseph Hume	ChE	85	La Salle
McCormack, Thomas Hume	CerE		La Salle
McCown, Thomas James	EE	2	Huntsville, Alabama
McCoy, Alva Elisha	Agr	68	Altamont
McCoy, Homer Walter	Agr	36	Mt. Sterling
McCoy, J. Harvey	Agr sp		New York City
McCracken, Wendell Kemp	Bus	66	Paxton
McCubbin, Sallie Logan	SS		Petersburg
McCuen, Glenn William	Agr	110	Chebanse
McCulloch, Harry Weber	SS	131½	Freeport
McCullough, Clarence Avery	LAS	48	Urbana
McCullough, Helen E.	HSLAS	48	Urbana
McCullough, Mary Elizabeth	LAS		Urbana
McCumber, Charles William	AE	86½	Chicago
McDermott, Raymond Adam	Med (SS)	31	Batavia
MacDonald, Ada Lucille	Mus sp		Lincoln
Macdonald, Alexander Paul, Jr.	Agr	68	Morris
McDonald, Grace	SS	4	Marion
McDougle, Grace Almira	HS Agr		Humboldt
McDowell, Robert E.	Agr (SS)	7½	Rocky Mount, North Carolina
McEldowney, Roy	ME	4	Chicago
McElhiney, Ruth	LAS		Kenney
McElroy, Mildred Cherington B.A. (Ohio Wesleyan) 1914	Lb		Delaware, Ohio
McElveen, William Thomas, Jr.	Bus	64	Evanston
McEvers, Ernest	EE		Montezuma
McEvoy, Thomas Treston	Agr	32	Chicago
McFadden, Belle Lorraine, A.B., 1897	SS		Champaign
McFall, Dumas Miller	LAS	67	Mattoon
McFarland, Robert Bruce	A	84	Topeka, Kansas
McFerson, William H.	AE	59½	Boulder, Colorado
McFie, Amelia May	HSLAS		Santa Fe, New Mexico
McGaffgan, Emma F.	SS	5½	Carlyle
McGaughey, Guy Ennis	L		Lawrenceville
McGehee, Hester Elizabeth	SS		Urbana
McGehee, Seelye Wright	Med	28	Urbana
McGhee, Ora	Agr	88½	Norris City
MacGillivray, Malcolm Edwards	LAS		Urbana
McGinnis, Charles Allen	SS	12½	Reevesville
McGowan, Thomas Fenton	L		Decatur
McGrath, Floyd Lawrence	Med	30	Savanna
McGrath, Wilson Thomas	Agr		Chicago
McGraw, Katherine Cecilia	Mus sp		Champaign

McGraw, Katherine Leslie, A.B., 1914	Lb	Urbana
McGraw, Thomas Francis	Bus	Champaign
McGregor, John Lancaster	CE	Chicago
McGuinness, Hugh Stanley	Med	Chicago
MacInnes, Frances Jean	Agr	67 Urbana
McIntire, Ella Elliott, B.L.S., 1909	SS	Urbana
McIntire, Virion Willard	SS	7½ Potomac
McJohnston, Claude Allen	SS	5 Evanston
McJohnston, Mary Jarvis	SS	1½ Evansville, Indiana
McKale, James Fred	SS	8 Lansing, Michigan
McKean, Leonard Albert	SS	61 Woodson
MacKechnie, Harry Woodington	AE	61 Brooklyn, New York
McKee, Edna Belle	LAS	100 Kankakee
McKeever, Emmett Robert	EE	Jackson, Nebraska
McKeon, Joseph Moore	MSE	93 Buffalo, New York
McKeown, John Latimer	AE	114 Chicago
McKenzie, Annie Laurie	SS	Highland Park
McKinnell, Isabelle Georgia	SS	55½ Beardstown
McKinney, Normann	Agr	34 Chicago
McKnight, John Ira	MnE	Chicago
McKnight, Timothy Irle	L	23 Oblong
McKown, Russell L	Agr	36 Davenport, Iowa
McLane, Erwin Roscoe	Agr sp	Reddick
McLaughlin, Mayme	SS	Auburn
McLaughlin, Walter Wylie	Agr sp	31 Cartter
McLee, Edward Brown	AE	Rockford
McManus, James Bernard	SS	33 La Salle
McMillan, John Charles	SS	7½ Aledo
MacMillan, Lawrence Claude	EE	60 Bridgeport
McMillen, George Burr	Bus	102 Champaign
McNally, John Leo	LAS	75½ Pueblo, Colorado
McNally, Mary Cecilia	LAS	Pueblo, Colorado
McNamara, James Leslie	LAS	Rock Island
MacNelly, William A	AE	29 Indianapolis, Indiana
McNish, David Thornley	Agr	Crystal Lake
McNulta, Scott	LAS	33 Decatur
MacPherson, Earle Steele	ME	11½ Highland Park
McRobie, Douglas	LAS	58 Montclair, New Jersey
McTaggart, Marguerite	SS	Divernon
McVey, Nellie Frances	LAS (SS)	98½ Hill City, Kansas
McWilliams, Marie Lindsay	Mus	Urbana
Macauley, John Blair, Jr.	ME	Evanston
Macbeth, Grace	Mus	121 Villa Grove
Mace, Hugh Harrison	LAS	Bellville
Macfarlane, Menzie	Agr sp	Salt Lake City, Utah
Machovec, Edward Paul	ME	50 Kansas City, Missouri
Mackey, Nicholas Charles	AE	Sydney, Australia
Mackie, Elton Thomas	Agr	29½ New Orleans, Louisiana
Maclear, John Fulton, A.M. (Univ. of Chicago) 1903	SS	Chicago
Macomber, Frank Bartlett	Bus	29 Oak Park
Madden, Grace Erminie	LAS (SS)	72½ Champaign
Madden, Helen Louise	Mus (SS)	100½ Champaign
Madden, Katherine Josephine	LAS	Champaign
Maddock, Earl Chester	Agr	St. Joseph
Mader, August	AE	116 Farmer City
Madsen, Olav	AE	37 Litchfield, Minnesota
Maguire, Mary Josephine	SS	3 Alton
Mah, Wing Ngui	LAS sp	32 San Francisco, California
Maher, Chauncey Carter	Med	Payson
Maher, Lillian Elizabeth	SS	10 Champaign
Mahood, Harry Samuel	CE	75 Mt. Carroll
Mains, Grace Lillian	HSLAS	Valparaiso, Indiana
Maitra, Krishua Mohan	RME	39 Benares City, India
Maley, Robert Carleton	ME	108 Rochelle
Malganee, Abdullah	ME	Solar, India
Mallett, Norman James	CerE	41 Altoona, Pennsylvania
Mallory, Richard Henderson	Med	Batavia
Mallstrom, Roe Eugene	Bus	2 Harvey
Maloit, Pauline Germaine	LAS	61 Elmhurst
Malsbary, Grace Estella	LAS	Darlington, Indiana
Mandeville, William Howard	Agr	53 Winnebago
Manley, Marion	A	Junction City, Kansas
Manley, Myra Frances	LAS	Champaign
Manley, Otis Rowe	Bus	35 Harvard
Mann, Edna Francis	HSLAS	31 Oak Park
Mann, Harold Abraham	Agr	38½ Mannville, Florida
Mannix, Pauline Marie Elizabeth	SS	85 Rockford
Mansfield, Charles Fredric	Agr	54 Monticello
Mapel, Frances Pauline	HSAgr	32 Fairbury
Mapes, George Chandler	ME	59 Savannah, Georgia
Marbach, Henry Adam Lewis	CE	10½ Chicago
Marblestone, Rose	Mus	17 Chicago
Marbold, Margaret Ann	LAS	92 Greenview

Marbold, Pauline	LAS	45	Greenview
Marks, Hazel Frances	LAS	63	Plymouth, Indiana
Marks, Maude Irene	LAS	33	Plymouth, Indiana
Marks, Sarah Ann	LAS (SS)	123	Pecatonica
Markwardt, Henry William	CE	37	Elgin
Marquis, Faughn Lewis	LAS		Mt. Vernon
Marquis, Leo Daniel	A	107	Milford
Marsh, J. S.	Agr	21	Sauwemin
Marshall, Glenn Wylie	MuE		Rutland
Marshall, Ralph William	LAS	89	West Chicago
Marshall, Robert Denkmann	Bus	5	Rock Island
Marshall, Thomas Holland	LAS		Fairfield
Marshall, William Vincent III	Agr		Milford
Marston, Ava	HSAgr	15	McGerr
Martell, Edmund Anthony	EE		Murphysboro
Martens, Margaret Louise	HSLAS		Anchor
Martin, Albert Thaddeus	Agr	21	Newton
Martin, Charles Blake	Bus		Mt. Carmel
Martin, Charles Donovan	Bus		Rantoul
Martin, Dwight Ray	Agr	29	Mason City
Martin, Emmet Giles	A	23	Los Angeles, California
Martin, Esther Evelyn	SS	14	Bridgeport
Martin, Fay Waldo	Bus	64	Mt. Carmel
Martin, Frank Albert	ChE		Chicago
Martin, Harold Montgomery	A	32	Cairo
Martin, Marvel	LAS		Ft. Meyers, Florida
Martin, Milford Maurice	LAS		Murphysboro
Martin, Thomas William	Agr		Fairfield
Martin, William Holmes	LAS	94½	Greenville, Ohio
Martin, William Hugh	LAS		Beech Ridge
Martin, William Troy	Agr		Climax, Arkansas
Marx, Arthur William Kuhs	ME	10	St. Louis, Missouri
Marx, Frederick August Kuhs	CE	108½	St. Louis, Missouri
Marx, George Bernard	Bus	40	Aurora
Mason, Arthur Helgeson	Bus	64	Urbana
Mason, Jean Fraser	LAS		La Salle
Mason, Ross Seguire	ME	75	Buda
Massey, Henry Laurens	ME		Little Rock, Arkansas
Masson, Lewis William	Agr		Buffalo, New York
Masuda, Tetsu, A.B. (Univ. of Iowa) 1913	Agr	61½	Takamcator City, Japan
Mateer, Howard Wilson	EE	74	Rutland
Mather, Asa Frisbie	LAS		Plainfield
Mather, Rose Margaret, A.B., 1905	Lb	53	Plainfield
Mather, William Asher	Agr	27	Aurora
Mathews, William Rankin	Bus	43½	Pasadena, California
Mathieson, Martin	LAS sp		Konsmo, Norway
Mathis, George Newton	Agr		Magnolia
Matlock, Gerald Eugene	Agr		Yorkville
Matoba, George Hajime	EE	64	Kioto, Japan
Matson, Harry Emil	ME		Chicago
Matteson, Glenn Harlow	Agr	98½	Fairfield
Matthews, Albert Otto	MSE		Washington, D. C.
Matthews, Allen Bradford	Bus		West Lafayette, Indiana
Matthews, Grover Cleveland	LAS		Colchester
Matthews, Irene Estella	SS		Dubuque, Iowa
Mattingly, Leo Joseph	AE	76	Champaign
Mattis, Mary Katherine, A.B. (Smith Coll.) 1911	LAS		Champaign
Mattison, John Dwight	CE	108	Oregon
Mattoon, Edwin Whitaker	LAS	111	Champaign
Matuszewig, Veronica Catherine	LAS		Minonk
Mautner, Erwin William	ChE		Chicago
Mavity, Maurine	LAS	60	Eureka
Mavor, Hugh Nelson	AE	73	La Grange
Maxfield, Elizabeth Allmond	SS	6	Palmyra
Maxwell, Leslie Blaine	Bus	37	Paris
Maxwell, Loyal C	ChE	32	Flat Rock
Maxwell, Raymond Jones	LAS		Paris
May, Clifford Blaine	Agr	48	Kirkland
Mayerstein, Ralph Maurice	LAS	30	Lafayette, Indiana
Maynard, Donald Edmund	Med	31	Chicago
Mayo, Thomas Bolton	LAS		Alton
Maze, Hamilton Murray	LAS	34	Peru
Mealiff, Arthur Edward	Agr	65	Chicago
Meals, Robert Woodruff	Agr	29	Peoria
Medendorp, Titus Arend	ME	4	Chicago
Meek, Harold Tecumseh	LAS		Peoria
Meek, Wilbur	Bus	56	Corrollton
Meeker, Grace Ruth	SS		Ottawa, Kansas
Meeker, Jennie Evelyn	SS		Ottawa, Kansas
Mehlhop, Margaret Mildred	LAS (SS)	88	Havana
Meisenhelder, Benjamin	LAS	54	Palestine
Melin Charles Raymond	Agr		Chicago

Melnick, Louis I	Med(SS)	13	Burlington, Vermont
Meltz, Nathan	Agr (SS)	105	Hamburg, Germany
Memmen, Dean Ellsworth	CE		Minonk
Mendel, Ferdinand Albert	ME		Chicago
Meneley, Olive Myrtle	Mus	68	Champaign
Menzel, George Henry	Ch	108½	Moline
Menig, Alma Agnes, A.B. (Univ. of Colorado) 1908	Lb		Denver, Colorado
Menke, Arnold Edward	LAS (SS)	94	Evansville, Indiana
Menke, Harry George	MSE	108	Quincy
Mensenkamp, Louis Edward	LAS	70	Freeport
Menz, Olive Mae	Mus		Rochelle
Mercer, Charles Franklin	CE		Kansas City, Missouri
Mercer, George Eugene	Agr sp		Wyanet
Mercer, Ralph Dilworth	Agr		Vermont
Mercey, Raymond John	Med	64	St. David
Meredith, La Verne	SS	21	Perry
Merker, David Felmley	Agr		Belleville
Merrel, H Dayton	SS		Kokomo, Indiana
Merrick, Ada Menona	SS	12	Champaign
Merrick, Ida Leona	SS	12	Champaign
Merrill, George Wilson	Agr sp	37	Le Roy, Kansas
Merriman, John Kiley	SS	125½	Springfield
Merritt, Cora Leone	HSLAS	31	St. Louis, Missouri
Metz, Carl Altgeld	CE	110	Tolono
Metzger, Leroy Paul	Bus		Cairo
Metzler, Arthur Maurice	Bus (SS)	82	Champaign
Mewhirter, Jannet Lou	HSAgr		Yorkville
Meyer, Alfred Werner	ChE (SS)	35	Chicago
Meyer, Alvin Frederic	Agr	26	Deerfield
Meyer, Carl Theodor	A	67	Springfield
Meyer, Ralph	LAS	27	Flora
Meyer, Raymond Edward	Bus	17	Chicago
Miao, Yun Tai	ME		Yunnanfu, China
Miao, Lu-drao	CE		Washington, D. C.
Mickelson, Jens Christian	EE	46	Chicago
Middleton, Edith Anna	HSLAS	39	Chicago
Midkiff, John Howard	Agr	41	Stonington
Miers, Roy Hamilton	Agr	71	Burney, Indiana
Miles, Eunice	HSLAS		Garden City, Kansas
Miles, Helen Myriell	LAS		Bushnell
Miles, Luther Fiske	Agr		Urbana
Miles, May	HSAgr	68	Garden City, Kansas
Miles, Thomas Boyd	Agr	19	Lewistown
Millar, Russell Ward	Ch	75	Mattoon
Miller, Anna	SS		Petersburg
Miller, Mrs. Anna Easley	SS		Indianapolis, Indiana
Miller, Archie Roscoe	EE		Mahomet
Miller, Arthur Clair	SS		New Market, Indiana
Miller, Cuyler Clark, Jr.	Agr		Carlinville
Miller, Daniel Edwin	ME	82	Quincy
Miller, Dean Albert	ME		Canton
Miller, Elliott Strong	Bus	60	Oak Park
Miller, Erwin Franklin	A	81½	Onarga, Kansas
Miller, Everett Dodge	ME		Bushnell
Miller, Francis H	Bus		Chicago
Miller, Fred Merle, B.S. (Oregon Agr. Coll.) 1914	ME		Albany, Oregon
Miller, Fred Raney	LAS	63	Gilman
Miller, Harold Thomas	ChE		Burlington, Iowa
Miller, John Harold	EE	110	Oak Park
Miller, Joseph Harrison	CE	74	Red Oak
Miller, John Millage	SS	25	Evansville, Indiana
Miller, Kathleen Winifred	LAS		Princeville
Miller, Kenneth Adlai	A	29	Bloomington
Miller, Mabel Lucile, A.B., 1912	SS		Urbana
Miller, Max F	Agr		Waterloo, Iowa
Miller, Ora Lucile	HSLAS	116	Atlanta
Miller, Pearl Hobart	SS	8	Marshall
Miller, Perrin Cromwell	LAS		Wheaton
Miller, Samuel Adam	Agr		Paupawa
Miller, William Pitt, A.B., 1901	Agr	59	Bloomington
Milleson, Cecil Clyde	Agr	34	East St. Louis
Millikan, Carl E	MnE		Chicago
Millizen, Edna Varner	LAS (SS)	110½	Champaign
Millman, Harry Abram	Bus		Chicago
Mills, Ben Fay	Agr		Palestine
Mills, Buren Orville	Agr	30	Palestine
Mills, Elmer Elias	ChE	41	Chicago
Mills, Fred Leon	L	3	Oak Park
Mills, Glenn Horace	LAS		Ottawa
Mills, James Evan	SS	3	Waterloo, New York
Mills, John Turner	Agr	71	McNabb

Mills, Niles Easton	<i>Agr</i>		San Luis Obispo, California
Millson, Walter Clair	<i>Cer</i>	124	Macomb
Milne, Agnes Mabel	<i>HSLAS</i>	101	Lockport
Milne, Edward Lawrence, M.S., 1900	<i>SS</i>	2	Lockport
Miner, Helen Nellora	<i>HSAgr</i>		Adair
Miner, Henry	<i>Agr sp</i>	67½	Waverly
Miner, William	<i>SS</i>	80	Cambria, Iowa
Mink, Dwight L	<i>EE</i>	37	Galva
Minkema, William Herman	<i>ME</i>	37	Chicago
Minnis, Lemuel Ernest	<i>Agr</i>	69	Chicago
Missimer, Dale Johnson	<i>SS</i>	15	Colorado Springs, Colorado
Mitchell, Daniel Palmer	<i>SS</i>	6	Effingham
Mitchell, Donald Richards	<i>Agr</i>		Chicago
Mitchell, Elsie Louise	<i>HSAgr</i>	82	Havana
Mitchell, Eva, A.B., 1912	<i>SS</i>		Georgetown, Ohio
Mitchell, George William	<i>Agr</i>	34	Marion
Mitchell, Grace	<i>LAS</i>	65	Georgetown, Ohio
Mitchell, Grover Ira	<i>ME</i>	121½	Cornell
Mitchell, Helen, A.B., 1914	<i>SS</i>		Georgetown, Ohio
Mitchell, Leonard Osgood	<i>Agr</i>	38	Chicago
Mitchell, Robert Stephens	<i>EE</i>		St. Louis, Missouri
Mitchell, Leroy James	<i>Agr</i>		Robinson
Mitchell, William Norman	<i>CE</i>		Topeka, Kansas
Moberly, Edwin Stuart	<i>Bus</i>		Tallulah, Louisiana
Moburg, Ernest Reuben	<i>Agr</i>		Kirkwood
Modes, Sara Voorhees	<i>SS</i>	7½	Decatur
Moffett, Clyde Grant	<i>SS</i>	3½	Murrayville
Moffett, Donald Romain	<i>L</i>	33	Paxton
Moffett, Thomas Oscar	<i>EE</i>	37	Oakland
Mohlman, Harry	<i>Agr</i>	63	Urbana
Mohr, Alba Agnes	<i>SS</i>	110	Beardstown
Mohr, Edward Emil	<i>Med</i>		Chicago
Mohr, John Henry	<i>Bus</i>	25	Chicago
Moll, Paul	<i>Bus</i>		St. Louis, Missouri
Molyneaux, Juniata Onita	<i>LAS</i>	31	Woodland
Moncrieff, James Weir	<i>CerE</i>		Osego, Michigan
Monnig, Joseph Theodore	<i>Bus</i>		St. Louis, Missouri
Monohon, Ila E	<i>HSLAS</i>		Greenup
Montague, Albert Richardson	<i>CE (SS)</i>	93	Chicago
Montgomery, Charles Albin	<i>Bus</i>		Petersburg
Montgomery, Earl Livingston	<i>Agr</i>	26½	Chicago
Montgomery, Thaddeus Lemert	<i>Med</i>	41	Dexter, Missouri
Moon, Lawrence Bartelle	<i>ME</i>	30	Auburn
Mooney, Raymond	<i>EE</i>	30	Chicago
Moor, Hubert Watson	<i>ChE</i>	35	Champaign
Moore, Allen Ray	<i>LAS</i>		Urbana
Moore, Allie Adelaide	<i>LAS</i>		Urbana
Moore, Edward Wilson	<i>Med</i>		Murphysboro
Moore, Herbert Jackson	<i>Agr</i>	102½	Chicago
Moore, Hiram Wodrich	<i>Agr</i>		Chicago
Moore, Lewis Albert	<i>Agr</i>	50	Humboldt
Moore, Mabel Elizabeth	<i>HSLAS</i>	30	Nashville
Moore, Mary Rebecca, A.B., 1911	<i>Mus</i>		Tolono
Moore, Nathaniel Francis	<i>Agr sp</i>		Chicago
Moore, Nelle	<i>Mus (SS)</i>	3	Olney
Moore, Richard Jacob	<i>Agr</i>	53½	Griggsville
Moore, Sara Elizabeth	<i>LAS</i>		Danville
Moore, Sidney Samuel	<i>SS</i>	17	Galva
Moore, Wellington, Edward	<i>LAS</i>		Schenectady, New York
Moore, William Abner	<i>LAS (SS)</i>	81	Urbana
Moote, Truman Pharaoh	<i>CE sp</i>		Urbana
Moran, Katharine Mary	<i>Agr sp</i>	30	Bartlesville, Oklahoma
Morey, Clara Adah	<i>LAS</i>		Macomb
Morey, Sarah Jane	<i>HSLAS</i>		Macomb
Morgan, Chester Arthur	<i>MnE (SS)</i>	110	Virde
Morgan, John William	<i>SS</i>	124	Braceville
Morgan, May Merboth	<i>LAS</i>	34½	Chicago
Morgan, Ralph Waldo	<i>ChE</i>	69	Macomb
Morgan, Thomas Sherman	<i>LAS</i>	71	East St. Louis
Morin, Oswell	<i>Med</i>	26	Danville
Morita, Haneyemon	<i>Bus</i>		Kimitsa, Japan
Morkel, William Algernon Kingsmill	<i>Agr</i>	148½	Belleville, South Africa
Morrill, Ralph Leonard	<i>CE</i>	118	Chicago
Morrill, Leslie Sherman	<i>ME</i>	75	Blue Island
Morris, Harold Harrison	<i>Agr</i>		Clinton
Morris, Helen Elisabeth	<i>HSLAS</i>		St. Louis, Missouri
Morris, Josephine Annette	<i>SS</i>	11	Murphysboro
Morris, Nelson Marvin	<i>MnE</i>	36	Harrisburg
Morris, Vernon Leslie	<i>AE (SS)</i>	102	Congress Park
Morrison, Carl Raymond	<i>ME</i>	12	Columbus, Indiana
Morrison, Carlisle Brey	<i>L sp</i>		Waterloo
Morrison, Harry	<i>Agr</i>		Des Moines, Iowa
Morrison, Helen Sinclair	<i>HSAgr</i>	103	Joliet

Morrison, Ivan G	<i>Agr</i>	32	Fairbury
Morrison, Lethe Eleanora	<i>HSLAS</i>		Waterloo
Morrison, William Raymond	<i>LAS (SS)</i>	109½	Waterloo
Morrissey, Edward Henry	<i>LAS (SS)</i>	103	Champaign
Morrow, Erwin Geoby	<i>A</i>		Zimmerman, Louisiana
Morsch, Elmer John	<i>Agr</i>		Hinckley
Morse, John Hamilton	<i>Bus</i>	115	Troy, Pa.
Morton, Eula Certitude	<i>LAS</i>		Marshall
Morton, Ray Victor	<i>Agr</i>		Paris
Moser, Olga Fern, B. Mus., 1913	<i>LAS</i>		Sigel
Moses, Robert Louis	<i>Agr</i>	67	Chicago
Mosier, Leota Irene	<i>HSLAS</i>	67	Urbana
Moss, Alida Helen	<i>LAS</i>		Urbana
Moss, Florence Louise	<i>A</i>	40	Charles City, Iowa
Moss, C. Sedgwick	<i>A</i>	65	Charles City, Iowa
Moss, Gladys Irene	<i>HSLAS</i>	99	Chicago
Moss, Mrs. Lillie C	<i>SS</i>	6½	Chicago
Moss, Ruth Alice	<i>SS</i>	75½	Mt. Vernon
Mottier, Julia Louise	<i>HSLAS</i>	64	Gibson City
Moulton, Harold Hoyt	<i>Agr sp</i>		Urbana
Mounds, Will Walter	<i>Agr</i>	75	Carlinville
Mourning, Paul Wetzel	<i>L</i>	28	Rushville
Moyen, Carl Peter	<i>ChE</i>	59	Chicago
Muckelroy, Renzo	<i>SS</i>	116½	Mt. Vernon
Mueller, Alphose John	<i>A</i>		Granite City
Mueller, Carl Oscar	<i>AE</i>	37	Chicago
Mueller, Fred August	<i>Agr</i>		Milford
Mueller, Fritz August	<i>ChE</i>		Fremont, Nebraska
Mueller, Harry Louis	<i>Ch</i>	66	Highland
Mueller, Henry Rollo	<i>Agr sp</i>	114	Sedgwick, Kansas
Mueller, Herbert Edward	<i>AE</i>	37	Chicago
Mueller, Herbert Zoller	<i>EE</i>	74	Quincy
Mulac, Louis Edward	<i>ME</i>	82	Chicago
Mulford, Edgar Theodore	<i>CE</i>	27	Mason City
Mullins, Edward Richard	<i>AE</i>	47	Champaign
Munns, Charles Willard	<i>Bus</i>		Peoria
Munroe, Mary Flora	<i>LAS</i>		River Forest
Munson, John Leonard	<i>Agr</i>	28	Randolph
Munson, Morris George	<i>ME sp</i>		Urbana
Murata, Motosaburo	<i>EE</i>	33½	Shingu, Japan
Murduck, Elizabeth Adams	<i>LAS</i>	41	Champaign
Murphy, Everett Franklin	<i>Agr (SS)</i>	64	Marshall
Murphy, George Raymond	<i>SS</i>	26	Faribault, Minnesota
Murphy, Howard Dawson	<i>Agr (SS)</i>	57	Chicago
Murphy, Margaret	<i>SS</i>	14	Carlinville
Murphy, Robert Brown	<i>ME</i>		Decatur
Murphy, Robert Emmett	<i>ME</i>		Anderson, Indiana
Murray, Annie Louise	<i>SS</i>		Champaign
Murray, David Reese	<i>LAS</i>		Chicago
Murray, Donald Bain	<i>LAS</i>		River Forest
Murray, Forrest Hamilton	<i>LAS</i>	116½	Mazon
Murray, Grace Mildred	<i>LAS (SS)</i>	36	Champaign
Murray, Margaret Blanche	<i>SS</i>	31	Champaign
Murray, Oscar James	<i>Bus</i>	67	Chicago
Murray, Robert Edward	<i>Agr</i>	22	Grand Rapids, Michigan
Murray, Sprague Elmo	<i>Agr</i>	1½	Mazon
Murrill, Hosea Raymond	<i>EE</i>		Flat River, Missouri
Murrill, Randall Tolman	<i>ME</i>	93	Flat River, Missouri
Musch, Harry Edwin	<i>LAS</i>		Beardstown
Mussenden, Ruth Isabel	<i>HSLAS</i>	67	Roswell, New Mexico
Myers, Emma Frances	<i>LAS</i>		Huntington, West Virginia
Myers, Harold Edwin	<i>Bus</i>		Malden
Myers, Rachel Flossie	<i>HSLAS (SS)</i>	107½	Huntington, West Virginia
Myers, Waldo Ray	<i>Bus</i>	62	Mahomet
Myerson, Herbert	<i>Bus</i>		Chicago
Mylroie, John Miller	<i>ME</i>	110	Kingman, Kansas
Nachtrich, Georg Williams	<i>LAS</i>		Elkhart, Indiana
Naden, Clifford Fox	<i>Agr</i>	19½	Yorkville
Naden, Gladys Leora	<i>HS Agr</i>	4	Newark
Nafziger, John Monroe	<i>Agr sp</i>		Hopedale
Nag, Nripendra Kumar	<i>EE (SS)</i>	76	Bengal, India
Nag, Surendra Chandra	<i>MSE</i>	38½	Calcutta, India
Nakada, Kyoichi	<i>EE</i>	57	Okayama, Japan
Nance, Oliver Odell	<i>SS</i>	2½	Jackson, Missouri
Nay, Ernest Omar	<i>Med</i>	31	Marshall
Nealon, Daniel Fisher	<i>ChE</i>		Chicago
Nebel, Clarence Arthur	<i>Agr</i>	106½	Clinton
Needham, Catherine	<i>LAS</i>		Urbana
Needham, John Wilbert	<i>AE</i>	36½	Urbana
Needham, Minnie Lucile	<i>HSLAS (SS)</i>	59	Urbana
Needler, Julius Hequembourg	<i>ME</i>	47	Chicago
Neely, Bertha	<i>SS</i>	49	Marion
Neely, John Childs, Jr.	<i>A</i>		Topeka, Kansas

Neiburg, Simon Jacob	LAS		St. Albans, Utah
Nelson, Adolph Lincoln	ME	78	Galesburg
Nelson, Esther Pauline	LAS		Fithian
Nelson, George Ansley	LAS		Chicago
Nelson, Gertrude Viola	SS	8	Momence
Nelson, Idris, A. B., 1912	Cer		Canton
Nelson, James Ray	ME	92	Moline
Nelson, J. Ward	Agr	35½	Champaign
Nelson, Leon Wilfred	Agr	67	Knoxville
Nelson, Milton Nels	LAS	97	Chicago
Nelson, Ralph Augustus	ChE	120	Chicago
Nelson, Walter Stephan	EE		Chicago
Nelson, William Oscar	ME	39	Peoria
Nesbitt, Carl Wesley	Ch		Macomb
Neslage, Oliver John	ME	89	St. Louis, Missouri
Netcott, Roland Earl	AE	37	Independence, Iowa
Netz, Ralph Morlan	LAS		Albion, Indiana
Neuhalfen, Mathias	AE	62½	Grand Island, Nebraska
Neuhauser, Edwin Valentine	Bus	6	Gridley
Neville, Florence Edith	LAS	98	Kewanee
Neville, Olive Myrtle	HSLAS		Kewanee
Nevins, Arthur Seymour, A. B. 1913	SS		New York City
Newburn, Iva Florence	HSLAS		Urbana
Newburn, Naomi Olive, A. B. 1914	LAS		Urbana
Newcomb, Edwin E	A		Burlington, Kansas
Newell, Florence Eleanor	SS	5½	Cooperstown, North Dakota
Newell, Lawrence Plympton	Agr sp		Chicago
Newell, Moses Elmer	L sp	56	Westfield
Newell, Ruth Brannon	Mus		Norman, Oklahoma
Newenham, Raymond	SS	25	Hersman
Newlin, Harold Varce	LAS	36	Robinson
Newlin, Ralph Thomas	LAS	33	Robinson
Newlin, Walter Allen	Agr	7	Annapolis
Newman, Frieda	HSLAS		Indianapolis, Indiana
Newman, Reuben Charles	ME		Chicago
Newton, Robert Keith	EE		Jerseyville
Nichol, George William	Bus	29	Anderson, Indiana
Nichols, Charles Henry A	Agr		Hebron
Nichols, Floris Wilson	Bus	68	Toluca
Nichols, Gladys, B. A., (Otterbein Univ.) 1914	Lb		Westerville, Ohio
Nichols, Josephine Marie	LAS	29	Dixon
Nichols, Rae Crampton	Agr (SS)	108	Chicago
Nichols, Walter Lester	CE	101	Cincinnati, Ohio
Nickolls, Cecil Richard	Agr sp	56	Champaign
Niedermeyer, Arthur Wilhelm, A. B., (Jas. Millikin Univ.) 1912	SS		Decatur
Nightingale, Eugene Richard	EE		Champaign
Nilsen, Peter Jacob	EE	108	Salterød, Norway
Nilsson, Carl Ragnar	ME	132	Gothenburg, Sweden
Niven, Will Edward	LAS	26	Thorntown, Indiana
Niver, Roe	LAS	114	North Fairfield, Ohio
Nix, Julius Carl	CE	4	Freeport
Noack, Emilie Marie	LAS	96	Chicago
Noakes, Levi	SS	2	Westfield
Noble, Albert Wicks	ChE	5	Chicago
Noble, Joseph Morgan	LAS	87	Wichita, Kansas
Noble, Porter Charles	Agr		Bloomington
Nolan, Albert Joseph	Agr	63½	Harvard
Nolan, John Timothy	CE		Gilbert, Minnesota
Noland, Alma Elizabeth	HSLAS		Indianapolis, Indiana
Norberg, Alfred	CE	110½	Champaign
Nordstedt, Einar August	ME	75	Joliet
Norlin, Fred Christian, Jr.	CE	74	Chicago
Normile, John Morrissey	A	37	Bloomington
Norris, Dwight Reed	CE	34	Newman
Norris, Kathryn Lenore	HSLAS	31	Frankfort, Indiana
Norris, Wesley Kayler	CE	110	Chicago
Norstedt, Gardner August	Bus		Joliet
North, Clyde James	Agr	70	Winchester
North, Page Lane	Agr		St. Louis, Missouri
Norviel, Herald Bernard	Med		Urbana
Nott, Edson Lowell	Agr		Byron
Nowlen, Proctor Albert	Agr (SS)	86½	Morrison
Noxon, Elmer Warner	ME	68	St. Louis, Missouri
Noves, Ralph Amos	Agr		Waltham, Massachusetts
Null, Charles Elgy	Agr sp		Demopolis, Alabama
Oakes, Ella Baxter	HSAgr	26	Laura
Oaks, Helen Lucille	LAS	41	Kirkwood
Oherlander, Marie	Agr sp		New York City
O'Brien, Margaret Helen	SS	2	Champaign
O'Brien, Paul Thomas	SS	7½	Maple Park
O'Brien, Walter Lawrence	SS	16½	Maple Park

Ochoa, Vizcaino Alfonso	A	35½	Chicago
Ochs, Chester Adam	Bus	26	Chicago
O'Connell, William Rolfe	LAS	15	Springfield
O'Connor, Elias Reynal	CE (SS)	7	Buenos Aires, Argentina
Odell, Arthur Allen	Bus	97	Aguanga, California
Ogg, James Bruce	SS	8½	Palmyra
Ogg, John Hurley	ME		Buffalo, New York
Ogg, Nellie May	SS	2½	Palmyra
O'Harra, Reaburn	Agr		Chicago
Ohinata, Chiyozi	Bus	55½	Nagano, Japan
Ohrman, Ruth A I	SS	8	Harvey
Olander, Ernest Allen	CE	90½	Topeka, Kansas
Olbrick, Fred George	CE	80½	Cedar Falls, Iowa
Olsen, Harold Loeffel	EE		Highland Park
Olin, Irene Balfour	LAS	109	Evanston
Olin, Irwin Blaine	ME	10	Evanston
Oliveras, Ovidio	LAS sp		Chicago
Olmsted, Roscoe Thomas	LAS		Catlin
Olsen, Anna Margaret	LAS (SS)	110	Chicago
Olsen, Arthur Alexis	Agr	35½	Newark
Olsen, Carlton Frederick	ME	111	Chicago
Olseng, Harry Christian	Agr	10½	Chicago
Olson, Arthur Luther	Agr		Chicago
Olson, Robert Harold	AE	107	Chicago
Omcara, Allan Richard	Bus	33½	Chicago
O'Meara, James Joseph	MSE	61	Chicago
O'Neil, John James	Med	33	Bloomington
Opie, Hilda Caroline	LAS		Wheaton
Orcutt, Arthur Henry, A.B., B.S., 1914	SS		Arcola
Orland, Frank Addison	EE	36	Murphysboro
Orr, Clarence, A.B., 1914	SS		Auburn
Ort, Emma F	SS	91	Wahoo, Nebraska
Orth, Willis	Agr sp		Seaton
Osborne, Isabel Mary, A.B., 1909	SS		Atlantic, Iowa
Osburn, Reuel S	SS	35	Wilmington
Ostermeier, Bertha Johanna	SS	5	Springfield
Ostrom, Hallas Willard	ChE		Chicago
Oswalt, Benjamin Alonzo	SS	56½	Anderson
Ott, David Lee	ME	62½	Prophetstown
Ott, John Ehem	ME (SS)	35½	Chicago
Ott, Percy Wright	MSE	47	Mt. Hermon, Louisiana
Ottinger, Tracy Rollin	L	38½	Delta, Ohio
Otto, Gordon	Agr	34½	Peoria
Otto, Harwood	Med		Peoria
Oughton, John Richard, Jr.	Agr sp		Dwight
Overbagh, Alfred Alan	LAS (SS)	6	Chicago
Overend, Harrison George	A	57½	Edelstein
Overton, Ralph Marion	ME	37	Winchester
Owen, Charles Norton	ME	81	Chicago
Owen, Harold Patterson	CE		Chicago
Owen, Harry Leo	AE (SS)	67	Plano
Owens, Allan Philip	SS		Cleveland, Ohio
Owens, Bernice Russell	HS Agr (SS)		Pana
Owyang, George Taikin	Med (SS)		Courtland, California
Oyler, James Lloyd	Agr	66	Taylorville
Pack, Mary	HSLAS	3	River Forest
Paddock, Arthur Clyde	AE	3	Fort Worth, Texas
Paddock, Rolf Cottingham	Bus		Pana
Page, George James	ChE	35	Chicago
Pagin, John Beitner	ME	95	La Grange
Painkinsky, David	Ch		Chicago
Paisley, Sela Isabel	Mus	55	Urbana
Palfrey, John Robert	Agr		Urbana
Palmer, Arthur Bowen	CE		Mt. Pleasant, Iowa
Palmer, Charles Shattuck	Ch (SS)	32	Urbana
Palmer, Gerald Lewis	Bus	52	Chicago
Palmer, Robert Carrell	AE		Des Moines, Iowa
Pancoast, Donald A	ME		Springfield
Panhoe, Henry Aki	CE	119	Huang Shan, China
Panhorst, Frederick William	CE	107	Urbana
Pankow, Grace Elizabeth	LAS		Elgin
Parish, William Love	AE	76	Greenfield
Park, Jay Peter	Agr		Chicago
Parker, Benjamin	Agr sp		Chicago
Parker, Carolyn Adelaide	HSLAS		Aurora
Parker, George Thomas	Agr	37	Carrollton
Parker, Joel Weaver	CE		Mattoon
Parker, Raymond Webb	EE	106	Champaign
Parker, Warren Kender	Agr	100½	Arlington Heights
Parkinson, Kenneth Warren	Agr	69	Maxwell
Parkinson, Raymond Fielding	LAS		Carbondale
Parks, Catherine Elizabeth	LAS	48	Du Quoin
Parks, Clarence Runyan	Agr sp		Chicago

Parks, Frank Austi	Bus	11	Urbana
Parks, Wilma Gay	LAS	97	Cooperstown
Parmely, Maurice Edmund	Agr		Urbana
Parmely, Miles McKinstry	Ch (SS)	7	Urbana
Parr, Arthur Eldon	Agr		Champaign
Parr, Harold Lucien	Cer	47	Urbana
Parr, Louise Charlotte	LAS		Lockport
Parret, June Elizabeth	SS		Farmer City
Parrilli, Henry	EE (SS)	26	Chicago
Parsons, Glenn Rawls	SS		Creston, Iowa
Parsons, Harry McLauchlan, B.S., 1912	LAS		Chicago
Pastel, Alfred Robert	AE	10	Chicago
Patch, Mayhew Wilbur	Agr		Smithshire
Pathak, Mukand Lall	EE	59	Mauko, India
Patten, Norman Bond, Jr.	AE	117	Minneapolis, Minnesota
Patterson, Charles Roy	L	59	Sullivan
Patterson, Joseph Julian	A	61	Danville
Patterson, Nellie Rand	HSLAS	52	Chicago
Patterson, Willa Ruth	SS	54	Baldwin
Patton, Charles	Agr	36 1/2	Urbana
Patton, Frederick William	Agr	30	Montclair, New Jersey
Patton, John V	LAS	24	Atlanta
Patton, Richard Chalmers	LAS		Atlanta
Paul, Frank Martyn	ME		Kewanee
Pauli, Adolph Frederick	LAS	69	Peoria
Pause, Clara Elnora	Bus		Chicago
Pause, Herman John	EE		Chicago
Pavey, Charles Allen	Bus		Chicago
Peadro, Bernice F	LAS	60	Sullivan
Peale, Margaret	HSLAS		Belvidere
Pearry, Major James	LAS sp (SS)		St. Maurice, Louisiana
Pearson, Francis H	ME		Hinsdale
Pearson, Homer Arnold	EE	36	Thorntown, Indiana
Pecchia, Victor Anthony	CE	64	Chicago
Peck, Fred Albert, Jr.	EE	10	Chicago
Peck, Norman Lee, A. B. (Ottawa Univ.) 1913	Lb	33	Ottawa, Kansas
Peck, Roy Lee	CE	67	Oak Park
Pedler, Russell Henry	ME	63	Chicago
Peirce, Earle Carleton	ME	107	Chicago
Peirson, Mary Lucile	HSLAS		Murphysboro
Pell, Hazel Marie	HSAgr		Urbana
Pemberton, Bessie Belle	SS	84	Eldorado
Pemberton, Ina Mamie	SS sp	7 1/2	West Plains, Missouri
Pendarvis, Harry Reed	EE	81	Chicago
Pendarvis, Wilbur Otis	LAS	102	Media
Penhallow, Lambert Benjamin	ME		Chicago
Penn, Josephine Emily	SS	34	Springfield
Pennewill, Patience Elizabeth	LAS	28	Washington
Penrose, Alma Meriba, A. B. (Oberlin Coll.) 1901	Lb	48	Urbana
Percival, Joseph W	Agr		Champaign
Percival, Lilley Ruth	HSAgr		Urbana
Percival, Marion Louise	LAS	102 1/2	Champaign
Percival, Stella Rebecca	Mus	49	Champaign
Perkins, Frances Janet	LAS	14	Laurel, Mississippi
Perkins, Lester Belz	Agr	33	Oak Park
Perlman, William Polakow	AE	40	Chicago
Perrott, Richard Henry	SS	70	Catlin
Perry, Herschel George	Agr		Carthage
Perry, Margaret Campbell	HSLAS (SS)	98	Urbana
Perry, Nelle	SS	117	Robinson
Perry, Ralph Grover	MnE	100	Urbana
Perry, Robert Ashman	ME	37	Urbana
Perry, Winifred Almina, A. M. 1914	LAS		Urbana
Peters, Everett Robert	Agr		St. Joseph
Petersen, Marvie Hecht	Agr		Chicago
Peterson, Chester Almon	Agr	33	Galesburg
Peterson, Eleanor Sarah	HSAgr	123	Galesburg
Peterson, Joe Oliver	Med	29	Princeton, Minnesota
Peterson, Joel Asbury	LAS		Urbana
Peterson, John Wallace	Agr sp	21	Urbana
Peterson, Reuben Walter	Agr	33	Chicago
Peterson, William Chandler	A	69	N. Crystal Lake
Pethybridge, Frank Howard	Agr	32	Chicago
Petroff, Racho Poppove	EE	26	S. Musina, Bulgaria
Petter, Margaret Miller	HSAgr	16	Cairo
Petter, Stanley Dubois	ME		Paducah, Kentucky
Pettit, Arthur Edwin	LAS	33	Stuttgart, Arkansas
Petty, DeWitt Talmage	SS	8	Sumner
Petty, Ross Manley	Agr	30	Sumner
Pettys, Wilbur Orlando	ME	27 1/2	Urbana
Petzing, Edwin Rudolph	EE		Shumway

Peyraud, Albert Paul	A	81	Chicago
Pfeiffer, Conrad Louis	EE	41	Chicago
Pfeiffer, Rudolph Salisbury	ME	42½	Peoria
Phalen, Robert William	Bus		Evanston
Pheanis, Russell Hitchner	Bus		Monticello
Phelps, Howard Horace	Agr	106	Wells, Michigan
Philbrick, Lois	LAS	31	Champaign
Phillips, Alice Emma	HSLAS		Champaign
Phillips, Harriet Muriel	LAS	6	Chicago
Phillips, Jay Hamilton	Med	68	Chicago
Phillips, Joseph Edward	Agr		Green Valley
Phillips, Minnie Alice	HSLAS		Sullivan
Phillips, Ruth	HSLAS	32	E. Cleveland, Ohio
Phillips, Louis Irving	ME	2	Chicago
Phipps, James Blain	LAS		McDonald, Kansas
von Phil, William, Jr.	CE	60	New Orleans, Louisiana
Picken, John Francis	Agr		Argyle
Picken, Ralph Montgomery	Agr		Argyle
Pickett, Arthur William	CE		Chicago
Pieper, John	Agr (SS)	81	Urbana
Pierce, Benjamin Elmer	CE		Genoa
Pierce, Clinton Albert	CE	39	Brooklyn, New York
Pierce, Harvey James	A		Dayton, Ohio
Pierson, Walter Raymond	LAS	75	Princeton
Pifer, Harry Charles	SS	5½	Lorington
Pihlgard, Eric Frederick	A	72½	Chicago
Pike, George Hyde	Bus	100	Silvis
Pilchard, Edwin Ivan	Agr		Mansfield
Pillsbury, Harold Fleming	Agr sp		Monmouth
Pinault, Louis Clovis	A	131½	St. Joseph, Minnesota
Pinkley, James Pierpont	A	68	Gibson City
Pinkney, Fred Theodore	ChE	88	Chicago
Pinkney, Leslie Arthur, A. B. (Wheaton Coll.) 1910	SS	8	Sterling
Piper, Leo Edward	A		Byron
Pitsenbarger, Ethel Gertrude	LAS	42	Champaign
Pitts, John Joseph, Jr., A. B., 1914	Agr		Bloomington
Plagge, Irwin Fred Willard	Ch	33½	Deerfield
Pletcher, Velma Coe	HSLAS	64	Rochester, Indiana
Plunkett, James Willis	Bus		Kansas City, Missouri
Plymale, Betha	HSLAS sp		Huntington, West Virginia
Poehlmann, Earl Franklin	Agr	5	Morton Grove
Pogue, Harold Austin	Bus	66	Decatur
Poirot, Severine Andrew	L		Belleville
Polakow, Alexander Hyman	ChE	98	Chicago
Polk, Robert Edmund	ChE	38	La Grange
Polk, Wesley William	MSE	65	La Grange
Pollock, Harry Robb, B. S., 1914	SS		Clinton
Pollock, Leone Ruth	HSLAS		Polo
Pollock, Samuel McNab	Agr sp	25½	Seaton
Ponder, Wilma Edith, A. B., 1912	Lb		Urbana
Pool, Ernest Howard	L		Ottawa
Pope, Lawrence Arthur	EE	127	Moline
Porter, Clarence L	Med	32	Belvidere
Porter, Harry Hubert	MnE	36	Gerlaw
Porter, Webster K	ChE (SS)	65½	Belvidere
Postel, Frederick William	Bus	102	Mascoutah
Postel, Urban Stuart	Bus	3½	Mascoutah
Postlewait, Harriet Leontine	LAS sp	29½	Urbana
Potter, Ellis J	A	121	Champaign
Potter, Emery Vern	EE (SS)	97½	Champaign
Potter, Glenn Edward	EE	37	Springfield
Potter, Phil Harry	Agr	17½	Chicago
Powell, Hazel Florence	SS sp	14	Champaign
Powers, Fred Richmond	Agr	121½	Tiskilwa
Powers, John Howard	Bus	35	Decatur
Powers, J Orin	SS	118½	Champaign
Powers, Ray Austin	Agr	26	Joliet
Prall, Beatrice, A. B. (Univ. of Arkansas) 1911	Lb		Hope, Arkansas
Pratt, William Carl	Agr	3½	Rockford
Presson, Harry Bristol	LAS	9½	Champaign
Presson, Lola Iris	HSLAS (SS)	69	Champaign
Price, Melville Halsey	ChE	32	Chicago
Price, Miles Oscar, S. B. (Univ. of Chicago) 1914	Lb	7	Plymouth, Indiana
Price, Neil	SS		Detroit, Michigan
Price, Raymond Lester	EE		Rockford
Primm, James Kelly	LAS	72	Champaign
Primm, Philip Timon	Agr	64	Champaign
Prince, Ben James	Agr		Lansing
Prince, William Jasper	Ch	90½	Coin, Iowa
Pritzlaff, Charles Phillip John	CE	89	Chicago

Propst, Duane Willard	LAS	70	Springfield
Pruett, Eugene Francise	Agr	64	Kinmundy
Pruitsman, Harold Claude	ME		Princeton
Puetz, John Carlyle, Jr.	LAS		Hinsdale
Pugh, Ada Roberta	HSLAS (SS)	96	Champaign
Fulcipher, K DeWitt	LAS		Centralia
Pulsipher, Irene Emma	HSAgr	63	Elmwood
Purcell, Bryant	Agr		Polo
Purcell, William Thomas	AE	39½	Chicago
Purdy, Raymond Harry	A	107	Vincennes, Indiana
Purnell, William Frank	Agr		Muncie
Pursell, James Roland	EE	15	Chicago
Pursley, Emma Stine	LAS	103	Kansas City, Missouri
Pusey, Frank Whitcomb	Agr	102	Fresno, California
Pyron, John Elder	ChE (SS)	64	St. Louis, Missouri
Quandt, Coramae	HSAgr	28	Urbana
Quesenberry, Ruth Lucille	HSLAS	58	Mansfield
Questel, Benjamin Harrison	Agr (SS)	63	Carmi
Quick, Harry	ME	37	Tiskilwa
Quin, Belle	SS		Grand Rapids, Wisconsin
Quinn, Florence Katherine	Mus	14	La Fayette
Quinn, Francis John	CE		Chicago
Raaberg, Ralph Skancke	AE	39	Chicago
Racheff, Ivan	CE		Lovech, Bulgaria
Radell, Fred Zeigler	Agr Sp	27	Chicago
Rafferty, John Joseph	ME	77	Chicago
Rafferty, Raymond Charles	Agr	3	Canton
Raffowitz, Frank	ME	77	Chicago
Rahn, Harry H	Bus		Tuscola
Rahn, Lester Addison	Agr		Lenark
Rahn, Reinhardt Philip	ME	36	Thornton
Rahn, Robert Charles	CerE	58	Chicago
Rahn, Rudolph	ME	37	Thornton
Raibourne, Claude	Bus	66	Waterloo
Raibourne, Paul Albert	EE	23	Waterloo
Raines, Lester Courtney	LAS		Milford
Raithel, Arthur Christopher	EE	81	Chicago
Rall, Eugene Robert Paul	CE	111	Chicago
Ramsay, Crawford John	SS	76	Martinville
Ramey, Frank Willard	A	40	Champaign
Ramser, John Hubert	ME	37	Alma
Randall, Frank John	Agr		Aurora
Randall, Grace Louise	LAS	25	Rogers Park
Randall, Thomas David	CE	115	Chicago
Randolph, Cora Creagor	LAS	32½	Kansas City, Missouri
Randolph, Edith Schultz	SS	8	Fort Scott, Kansas
Ranes, George Ottit	EE		Lawton, Oklahoma
Rang, Carl King, A. B., 1914	L	24	Rockford
Ranger, Katherine Mae	LAS	70	Harvey
Rankin, Luro Jane	HSLAS		Payson
Rankin, Robert Edmund	Agr Sp		Payson
Ranney, George Henry	Bus		Chicago
Ranney, Joel Alden	Agr	27	Cazenovia
Ranney, Nathan, Charles	Agr		Little York
Ranney, Willard Parminter	Agr	34	Cazenovia
Raphaelson, Sampson Miles	LAS		Chicago
Rapp, Edwin Wallace	Med	63	Aurora
Rapp, John Holly	LAS (SS)	105½	Fairfield
Rapp, Peter George	LAS	57	Fairfield
Raskewitz, Arthur	ME (SS)	40	Chicago
Ratcliff, Glenn	L (SS)	57	Greenup
Ratcliffe, Isaac La Grange	Bus	72	Highland, Kansas
Rathhun, Hubert Honens	Agr	35	Spring Valley
Rathfon, William Owen	CerE	109	Chicago
Rathje, Paul William	Agr		Peotone
Rathsack, Robert Everett	ME	27	Greenview
Rawlings, Howard Charles	EE		Farmer City
Ray, Bankim Chandra	EE	116	Barisal, India
Ray, Hugh Light	SS	75	Chicago
Ray, Luke Cranston	Med		Fort Worth, Texas
Ray, Julian David	SS	101½	Hagarstown
Rayburn, Allan Barnes	Agr	103	Bloomington
Reace, William Thomas	EE	109	Chicago
Read, William Gordon	Bus		Bloomington
Reading, Clarence	Agr		Mazon
Reagan, Maurice Edwin	EE	54½	Canton
Real, John Jeremiah	Bus	35	Sterling
Redig, Carl Francis	Agr		Chicago
Reding, Ralph Spears	Agr		Pekin
Redmon, Minnie	SS	5½	Decatur
Reece, Austin Newton	Agr		Springfield
Reed, Chester Otis, E.S. (Cornell), 1911	LAS		Pittsford, New York
Reed, Daisy	LAS		Herrin

Reed, Mrs. Fay R.	SS		Urbana
Reed, Gratia Jewett	HSLAS	102	Warsaw
Reed, Hazel Viola	HSAgr	31	Webster Grove, Missouri
Reed, Leo Bracy	ME		Eldorado
Reed, Maurice Johnson	MnE	37	Emerson
Rees, Oliver Perry	SS	3	Vermillion Grove
Reese, Leal Wiley	LAS (SS)	71½	Urbana
Reese, Lucile Nancy	Agr (SS)	29	Urbana
Reese, Raymond Leslie	Agr (SS)	7	Jonesboro, Arkansas
Rehling, Charles Henry	Agr	97½	Waterloo
Rehm, George Edward	Agr sp		Chicago
Rehnquist, Ernest Ferdinand	EE	35	Chicago
Reichelderfer, Harry	EE		Peoria
Reichenbach, Jay C	Bus		Centralia
Reid, George Hoster	Agr		Mt. Vernon
Reid, Harold Speer	Agr		St. Paul, Minnesota
Reid, Leo Woodruff	EE	60	Mt. Vernon
Reid, Mollie	SS	138	Ozark
Reinel, Bert Edwards	L		Streator
Reinhart, Irvin Julius	Agr sp	98	Alhambra
Reinmann, Frank Leo	ME		Peoria
Reinsch, Bernhard Paul	A (SS)	87	Tama, Iowa
Remington, Mac	A		St. Louis, Missouri
Renner, Enos Henry, Jr.	Agr		Urbana
Renner, Julia Elizabeth	LAS	98	Urbana
Renning, Albert Gordon	Bus sp		Highland Park
Reno, Guy Benjamin	L		Browning
Renolds, Magdalene	LAS		Cairo
Rentschler, Edna Kerr	LAS (SS)	92½	Belleville
Rentschler, Truman	Med		Dawson
Renwick, George W	ME	75	Chicago
Reschetz, Ernest Mathias	EE	37	Staunton
Retherford, Miriam Browning	HSLAS	2	Carthage, Indiana
Retz, Catherine Mabel	HSLAS	31	Ottawa
Reuling, Clarence Weiss	Bus	30	Morton
Re Veal, Ivan Lindsay	Ch		Hoopeston
Reynolds, Ora Edgar	LAS	60	Guthrie
Rhea, Chleo James Jared	REE	125½	Jacksonville
Rhoads, Marie Corzine	LAS		Champaign
Rhodes, Carlyle Seeds	CE	75	Lovington
Rhodes, Elmer Harvey	SS	5½	Pittsfield
Rhodes, Eugene Oliver	LAS		St. Louis, Missouri
Rhodes, John Millard	CE		Kansas
Rhodes, Martin Clifford	CE		Chicago
Rhue, Perry Marion	Bus		Champaign
Ribback, Louis	Agr (SS)	97	Chicago
Rice, Katherine Grace	LAS	21	Philo
Rice, Than Givens	EE		Providence, Kentucky
Rich, Donald Bert	Agr	104½	Chicago
Richards, Alice Mary	SS		Greenville
Richards, Carl	SS		Petersburg
Richards, Lenore	HSLAS	105	Urbana
Richards, Leo J	REE		Trenton, Missouri
Richards, Russel Robert	MnE		Gibson City
Richardson, Francis Edward	Agr		Chicago Heights
Richardson, Harvey Russel	EE	37	Morristown, New York
Richardson, Helen	SS		Oak Park
Richardson, Jaunita Bonnie	HSAgr (SS)	103	Danville
Richart, Berta Estelle	HSLAS		Urbana
Rickart, Blanche Belle	HSLAS (SS)	21	Champaign
Richers, Edgar Mathew	LAS (SS)	23	Altoona, Pennsylvania
Richman, James Herbert	EE		Villa Grove
Richmond, George Kerns	Bus	99½	Prophetstown
Richmond, Warren McLellen	Agr	33	Geneseo
Ricker, Ethel	A sp		Urbana
Ricks, Juanita	Bus		Urbana
Rider, George Clinton, Jr.	LAS (SS)		Pekin
Ridge, Francis Marion	LAS	26	Champaign
Riegel, Bertha	HSAgr sp		Galatia
Rigg, Granville Leroy	Agr sp	90½	Goldengate
Riggs, Mildred Eleanor	HSLAS	53½	Atwood
Riley, Raymond James	Cer	16	Terre Cotta
Rimes, Harry Lahue	Bus	30	St. Joseph, Michigan
Rinaker, Dorothy Sue	HSLAS	97	Springfield
Rinaker, John Irving	Agr		Springfield
Rinnman, Harry	Agr		Chicago
Ripley, Jean Kimberley	Agr	96	Chicago
Rising, John David	Bus		Champaign
Ritchie, Raymond Rockwood	SS	6	Southport, Indiana
Ritchey, Royal Wane	Agr	105	Urbana
Ritchie, Guy Lester	Agr	3½	Billet
Ritchie, Jeanette	HSAgr		Kansas City, Missouri
Ritt, Walter William Henry	A		Crystal Lake

Ritter, John Gilman	AE	47	Chicago
Ritter, Walter Theobald	REE	10	Chicago
Ritts, Charles Laurance	A	96	Drumright, Oklahoma
Rives, Nannie Baxter	LAS (SS)	98½	Rockbridge
Roach, Doris Eleanor	LAS	30	Decatur
Roane, Theodore	LAS	30	Chicago
Robbins, Ruth	LAS	96	Congress Park
Roberson, Mary	SS	2½	Villa Ridge
Roberts, Kathleen Alice	SS	2	Champaign
Roberts, Claude Morrill	Bus		Decatur
Roberts, Harold Higbee	ME	114	White Hall
Roberts, Jerome Gillispie	MnE	2½	Chicago
Roberts, Malcolm Douglas	Agr	28	New York City
Roberts, Nellie Read, A.B., 1913	Lb	38	Champaign
Roberts, Roland George	A (SS)	33½	Oak Park
Roberts, Thomas Tenbrook, Jr.	Agr sp		Decatur
Robertson, Arthur Beekman	Agr		Petersburg
Robertson, Charles Venable	Agr	35	Carlinville
Robertson, Dale Robert	EE		Albion
Robertson, Hugh Schuyler	Cer	78	Peoria
Robertson, Ina	SS	4	Edwardsville
Robertson, Miriam Selina	HSAgr	32	Champaign
Robinson, Albert William	ME	75	Oak Park
Robinson, Ethelyn Clyde	HSLAS		La Salle
Robinson, Gertrude Francis	SS	5	Pittsfield
Robinson, Glenn Warren	Agr	33½	Lincoln
Robinson, Henry Duncan	ME	41	Rockford
Robinson, Hugh Dean	LAS		Harvey
Robinson, John Lester	L sp	28	Mt. Vernon
Robinson, Ruth Love	HSAgr	65	Edwardsville
Robinson, Warren Isaac	Agr	34	La Salle
Robison, Edna Lena	SS	5	Pittsfield
Rockey, Paul Thomas	AE	30½	Freeport
Rodee, Palmer	Agr		Prophetstown
Rodgers, Perry Harrison	SS	40½	Atwood
Rodriguez, Antonio	CE		Mata, Cuba
Roe, Raymond	A		Chicago
Roesner, Hedwig Elisabeth	Mus (SS)	86½	Moline
Roessler, William Otto	Agr	72½	Shelbyville
Rogers, Beulah	LAS	78	Chicago
Rogers, Elsie Marie	HSLAS (SS)	36	Urbana
Rogers, Gardner Spencer	Agr	53	Evanston
Rogers, Harry Barrett	CE	107½	Chicago
Rogers, Harry Thomas	AE	76	Champaign
Rogers, Henry Sheldon	Agr	33	Marengo
Rogers, Paul Hauser	L	22	Atlanta
Rogers, Russel David	AE	73	Pekin
Rogge, Lena Maria	SS	8	Tallula
Rohlfing, Walter Lewis	Agr	66	Groveland
Rohn, Fred Andrew	AE	71	Chicago
Rohrer, Frank Philip	LAS	71	Gilman
Rolfe, Amy Lucile, A.B., 1908	Mus		Champaign
Rollins, Neta	LAS		Paxton
Rollo, John Newton	Agr		Chicago
Romeiser, Edwin	Agr	34	Belleville
Romero, Newman	LAS		Valparaiso, Chile
Romig, Jesse Arnold	EE	2	Champaign
Romine, Joseph Fred	Agr	99	Atwood
Rominger, William Edgar	L sp		Shelbyville
Rompel, Ruth Edith	LAS		Champaign
Roos, Edwin George	Agr	39	St. Louis
Root, Kimball Valentine	LAS	100	Chicago
Rooth, Carrie Lee, A.B., 1914	LAS		Joy
Rooth, James	ME		Joy
Roscoe, George Howard	Agr	41	Blue Island
Rose, Harold Boone	ME	88½	Urbana
Rose, Walter Silver	LAS	3	Chicago
Roseman, Leanor	LAS	25	Chicago
Rosen, Bernard	Bus		Chicago
Rosenberg, Frank	CerE	72	Chicago
Rosenberg, Herbert Bernard	Agr	62	Granite City
Rosenstone, Ruth Carlyn	Mus sp		Cambridge
Ross, Gertrude Duncan	LAS sp		Philo
Ross, Harry Albert	Agr	30	Greenville
Ross, Herbert Emil	LAS	26½	Evanston
Ross, John McLinn	LAS	24	New Haven, Connecticut
Ross, Kenneth Dwight	Bus	75	Grand Island, Nebraska
Ross, Nelda Glendora	HSAgr		Easton
Ross, Stanley Parker	A		Champaign
Rossett, Louis	EE	114	Chicago
Rotrock, Howard Moore	CE	73	Chicago
Rounds, Fred Grafton	A	110	St. Paul, Minnesota
Rourke, Ellen Mary	LAS	74	Springfield

Rourke, Ethel Ruth	SS		Divernon
Rourke, Margaret Elizabeth	SS	19½	Springfield
Rowe, Charles Baer	A	36	Chicago
Rowe, James	ME	37	Three Rivers, Michigan
Roy, Walter Clarence	SS	8	South Chicago
Rubright, Franklin Le Roy	Med		Emerson
Ruby, George Benjamin	ChE	106	Yorkville
Rue, Orlie	ME	110	Mattoon
Ruedi, Charles Henry	AE	29	St. Louis, Missouri
Rueff, Joseph Alvin	ME	6½	Oak Park
Ruehe, Mabel Louise	Mus (SS)	89	Urbana
Ruehl, Ray Edward	Agr		Chicago
Ruffner, Rachel	HSAgr	29	Caszy
Rugg, Earle Underwood	LAS (SS)	96½	Fitchburg, Massachusetts
Rugh, Lucien Edgar	ME		Argenta
Rukin, Max	Bus	95	Brooklyn, New York
Rumsey, Mary Hilliard	LAS	5½	Mattoon
Rundle, Howard Edward	REE (SS)	70	Iron Mountain, Michigan
Rundle, W B	Agr	3½	Clinton
Rundles, Charles Morton	LAS	78	Huntertown, Indiana
Rundles, Don Cameron	Agr	108	Huntertown, Indiana
Rundles, William Lloyd	Agr	8½	Huntertown, Indiana
Rundquist, Elmer Theodore	Agr		Harvey
Runneberg, Elton Cromwell	Agr	36	Hillside
Runyan, Clarence Edson	A	66	Creswell, Oregon
Rush, Ira Leon	A	124½	Great Falls, Montana
Rush, Paul White	Bus		Pittsfield
Rush, Roy Leslie	LAS	66	Mesa, Idaho
Rusk, Henry Perly	SS		Columbia, Missouri
Russell, Edwin Avery	CE		Buffalo, New York
Russell, Eugene Hamilton	Agr		Champaign
Russell, Virginia Elizabeth	SS		Champaign
Russett, Jasper Philip	A	48	Cedar Rapids, Iowa
Rust, Clarence O	Agr		Elgin
Rust, Louis John	EE	7½	Pekin
Rusy, Ben Franklin	Agr	45½	Chicago
Rutenber, Frances Marie	HSLAS	101	Champaign
Ruth, Rowland William	ME	109	Aurora
Ruth, Thomas Lenor	L	55	Champaign
Rutherford, Eugenia Elizabeth	LAS	106	Newman
Rutherford, Floreice	LAS		Newman
Rutledge, Burtch Irwin	LAS	69	Chatsworth
Ryan, Frank Warren	MSE		Lincoln
Ryan, Walter Richard	LAS		Alton
Ryther, Henry White	ME (SS)	133½	Chicago
Sachs, Ward Hanson	Agr sp		Towanda
Sachrison, Julius Alvin	Agr sp	101	Batavia
Sadler, Lucile	LAS	30	Grove City
Saffel, Gladys Deforest	LAS	5½	Urbana
Sailer, Frank	Agr		Chicago
Sailor, Ira Carl	Agr	94	Cissna Park
Sallerno, Joao	A		Sorocaba, Sao Paulo, Brazil
Salisbury, George Washington	Agr	134	Astoria
Salisbury, Meta Emogene	HSLAS		Urbana
Salladin, George Edward, Jr.	Bus		Milford, Nebraska
Sallce, Gordon Francis	ME	52	Litchfield
Saltzman, Herbert Sollie	A	40	Chicago
Samuels, Freda Irma	LAS	55	Chicago
Samuels, Theresa Minna	LAS		Chicago
Samuelson, Raphael Adelford	EE	100½	Elgin
Sandehn, Casper Wilhelm	LAS		Rockford
Sanders, George Edward	SS	10½	Champaign
Sanford, Harriet Adelaide	HSLAS	64	Danville
Sankee, Ruth, A. B., (Univ. of Kans.), 1914	Lb		Lawrence, Kansas
Santiago, Alfredo Viola	AE		S. Miguel, Bulacan, P. I.
Saperston, Q Nathan	EE	106	St. Charles
Sarett, Lew R. A. B., (Beloit Coll.)	L	21	Chicago
Sargeant, Francelia Plumley	Bus		Indianapolis, Indiana
Saul, Charles James	Bus	56	Dennison, Iowa
Saunders, Carl Jefferson	Bus		Roswell, New Mexico
Savage, Marie	LAS	103	Urbana
Savage, Mary Franklin	LAS	28	Belleville
Savage, William Chauncey	Agr	36	Frankfort, Michigan
Savage, William Elliott	McD	60½	Belleville
Saville, Edward William	Agr	26½	Canton
Sawers, Helen B	LAS	15	Chicago
Sawtell, Warren Michel	Agr Sp		Chicago
Sawyer, Gertrude	Agr		Norborne, Missouri
Sawyer, Henry Greeley	ChE	124	Monmouth
Sawyer, Philetus Thomas	Agr		Springfield
Saxton, Charles Van Keuren	AE	24	Pueblo, Colorado
Saxton, Harry T	SS		Detroit, Michigan
Schaefer, Edgar Frederick	LAS	69	Quincy

Schaefer, Ruth Marian	HSLAS	76½	Urbana
Schaefer, William Adolph	LAS		Chicago
Schafer, Hazel	HSLAS		Columbia City, Indiana
Schafer, Ida Z	SS		Macon
Schalack, Michael Andrew	Agr	58	Butler, Kentucky
Schaller, Gilbert Simon	ME	75	Mendota
Schaulin, George Marvin	Cer	85	Mazon
Schaumburg, Edward George, Jr.	A	54	St. Louis, Missouri
Schecht, Max	LAS	37	Brooklyn, New York
Schecter, Ralph Wendell	LAS	63½	Danville
Scheele, Donald Charles	ME	104	Elgin
Scheffer, Wilhelmenia	LAS		Atwood
Schernekan, William John	Cer		West Salem
Schetsnitz, Hymen	Bus	108	Chicago
Schickendanz, Louis Herman	ME	71	Chenoo
Schiesswohl, Philip George	Bus	99	Chicago
Schiesswohl, Ralph Louis	Bus	75	Chicago
Schiflin, Arthur Krissler	ME		Chicago
Schlacks, Henry Valentine	ME		Chicago
Schlader, Edward Holmes	REE (SS)	63½	Oak Park
Schleichert, Joseph Louis	AE		Chicago
Schleifer, Ferdinand John	Agr	34	Nashville
Schlemm, Robert Max	Agr	25	Chicago
Schloss, Philip	LAS		Terre Haute, Indiana
Schlueter, Waldo Lauff	Bus (SS)	27	E. St. Louis
Schmeltzer, Chauncey Brockway	CE		Manteno
Schmidt, Karl William	AE	99½	Kansas City, Missouri
Schmitz, Joseph Oscar	A	36	St. Joseph, Missouri
Schmitz, Karl Mathias	Bus		Manitowoc, Wisconsin
Schmidt, Paul Marvin	SS	14½	Earlville
Schneider, Arthur Charles	CE	49	Galena
Schneider, Daniel Charles	ME	115	Urbana
Schneider, Herbert	Med		Chicago
Schneider, William Henry	ME		Springfield
Schobinger, Eugene	MSE (SS)	112	Morgan Park
Schock, Arthur John	EE	37	Tower Hill
Schoombs, Frank Alvin	LAS	33	Cairo
Scholl, Raymond Stanley	Agr	69	Crafton, Pennsylvania
Schoondermark, Nelia Charlotte	A		Chicago
Schori, Margaret Opal	SS	8	Elmwood
Schreiber, Louis Henry	Agr		Chicago
Schreiber, Nathan	Med	21	Chicago
Schreiner, Harold Cordes	EE	26	River Forest
Schriner, Emma Ellen	SS	25	Peoria
Schroeder, Edith Carolyn	LAS	84	Chester
Schroeder, Paul Louis	Med	33	Nashville
Schroepfel, Harold Henry	EE	37	Mt. Carroll
Schucker, Rudolph Wester	A	147	Mt. Carmel
Schueler, Herbert	ME (SS)	54	La Salle
Schuette, Otto Theodore	Agr	82½	Chicago
Schuey, Claude Robert	SS	6½	Marion
Schuler, Dement	Bus		Dixon
Schuler, Don Buel	A	151	Wichita, Kansas
Schuler, Kate	SS	14½	Villa Ridge
Schultz, Carl Emil	Med	33	Oak Park
Schultz, Ernest Rudolf	Agr	78½	Dalldingen, Russia
Schulz, Frank J	Bus		Elmwood
Schulz, John A.	ChE	36	Elmwood
Schumacher, Dixie Howard	HSLAS	32	Rockport, Indiana
Schutte, William George	ME	71	Marseilles
Schutz, Marvin Edward	Agr		Hillview
Schwalm, Katherine	SS	6	Chicago
Schwarzwalder, Clarence Frank	AE		Elgin
Schweitzer, Benjamin Cecil	Bus		Mt. Carmel
Schwing, Edward Albert	SS	130	Peoria
Scott, Bertha Mary	Mus sp		Berwyn
Scott, George Eugene	A		Chicago
Scott, Gerald Russell	Agr	33	Chicago
Scott, Leota	SS		Russellville, Indiana
Scott, Lincoln Bain	Agr (SS)	84	Boston, Massachusetts
Scott, Ralph A.	Agr	33	Rock Falls
Scott, Robert Ashmore	Agr	75	Paris
Scott, Shirley Edward	L (SS)		Anderson, Indiana
Scott, Winfield	Agr sp (SS)	5½	Golconda
Scoville, John Allen	CE		Peoria
Scroggin, Mildred Alice	LAS	99	Mt. Pulaski
Scupham, Edward Jefferson	Agr		Homewood
Seaman, Katherine	LAS	103	Oak Park
Searles, Donald Kenneth	LAS	54	La Grange
Seass, Jeanie	HSLAS		Sullivan
Seavey, Harry Richmond	EE		Momence
Seay, Paul Hendrix	Bus	44½	Allensville, Kentucky

Sedgwick, James Howard	<i>Agr</i>	30	Peoria
Seed, Harry Raymond	<i>Agr</i>	61	Billet
Seeglitz, Albert Henry	<i>LAS</i>	35	Chicago
Seeglitz, William O	<i>LAS</i>		Chicago
Segui, Jack	<i>SS</i>	7	Lomas, Argentina
Seeley, Robert Mayer	<i>Bus</i>	62	Freeport
Seibel, Glee Page	<i>SS</i>	24½	Manlius
Seidenberg, Nathan Cook	<i>L (SS)</i>	14	Peoria
Seidner, Floyd	<i>AE</i>	51	Elkhart, Indiana
Seifert, Herbert Frank	<i>LAS</i>		Thiensville, Wisconsin
Seifried, Arthur George	<i>Agr</i>	71	Chicago
Sellards, William Heine	<i>Agr</i>	68	Champaign
Sellner, Edna	<i>Ch</i>	36	Quincy
Selsam, Beulah E	<i>Bus (SS)</i>	107	Hagerstown, Maryland
Selzer, Louis Jacob	<i>A</i>		Evansville, Indiana
Semple, Arthur Truman	<i>Agr</i>	68½	Riverton
Senbold, Heinrich John	<i>Agr</i>		Huntington, Indiana
Senneff, George Freeman	<i>Agr</i>	98½	Rock Falls
Sense, Mattie Alice	<i>HS Agr (SS)</i>	40	Waukega
Senseman, Harold Leonard	<i>AE</i>	30	Monmouth
Sexauer, James Monroe	<i>Agr</i>		Belvidere
Sexauer, Mae Magdalen	<i>LAS</i>	56	Belvidere
Seyfert, Max Charles	<i>L</i>		Circleville, Ohio
Seymour, Arthur Romeyn, <i>Ph.D</i> (<i>Univ. Wis.</i>), 1907	<i>Mus</i>		Urbana
Seyster, Ernest Wilford	<i>LAS</i>	110	Kempton
Shaddock, Rolla Edward	<i>Agr</i>		Macon
Shaffer, Orvin Valmont	<i>SS</i>	3	Danville
Shaffer, Randolph Clinton	<i>REE Sp</i>	14	Plymouth
Shaffer, Rolla Flemming	<i>Agr</i>	67½	Jefferson
Shallberg, Rudolph Earl	<i>LAS</i>	30	Moline
Shapiro, Abraham	<i>ME</i>		Chicago
Shapiro, Jacob	<i>LAS</i>		Chicago
Shapland, Fern Elizabeth Page	<i>LAS</i>		Sauwemin
Shapley, Ralph	<i>Agr</i>		Rockford
Sharer, Donald David	<i>MSE</i>	37	Decatur
Sharp, James C	<i>Agr</i>	30	Urbana
Sharp, Lucinda	<i>HS Agr</i>		E. St. Louis
Sharpe, Alan Freer	<i>Bus</i>		Oak Park
Sharpe, Henry Rhodes	<i>Agr Sp</i>		Urbana
Shaw, Mrs. Charlotte Joy	<i>LAS</i>		Urbana
Shaw, Ellis Marsh	<i>AE</i>	136	Rockford
Shaw, Frederick Wood	<i>CE</i>	36	Chicago
Shaw, Hazel	<i>Mus</i>		Urbana
Shawl, Ray Iris	<i>Agr</i>	94½	Peoria
Shay, Mary Lucille	<i>LAS</i>	31	Decatur
Sheaff, Robert Phineas	<i>Agr sp</i>		Holcomb
Shearer, Clinton Philip	<i>Agr</i>	36½	Auburn
Shedden, James William	<i>CE</i>		Chicago
Sheets, Ancel J	<i>EE</i>		Lawrenceville
Sheets, Haven McKendree	<i>Agr</i>	28	Georgetown
Sheetz, A Vernon	<i>Bus</i>	69	Freeport
Shelby, Edwin, Jr.	<i>CE</i>	75	New Orleans, Louisiana
Shelby, Francis Haywood	<i>Bus</i>	2	Lafayette, Indiana
Shelden, Walter William	<i>Bus</i>	74	Winnebago
Sheldon, Henry Kellogg	<i>EE</i>	95½	Sharpsburg
Sheldon, Nelson Edward	<i>AE</i>		Rockford
Shelley, Earl Frank	<i>CE</i>	84	Mt. Vernon
Shelton, Wilma Loy, A. B., 1914	<i>Lb</i>		Terre Haute, Indiana
Shen, Tszujin Chieh	<i>LAS</i>	30	Canton, China
Sheng, Mung-Chin	<i>LAS</i>	72	Kin Kiang, China
Shepard, Albert Durand	<i>SS</i>	8	Brookings, South Dakota
Shepard, Anna Lucile, A. B. (<i>University of Iowa</i>), 1910	<i>Mus</i>		Urbana
Sheppard, Charles Howard	<i>CE</i>	37	Edwardsville
Sheppard, Martin Anthony	<i>Med</i>		Peoria
Shere, Welby Cobb	<i>Agr</i>		Farmer City
Sheridan, Mary Beall	<i>HSLAS</i>	37	Sullivan, Indiana
Sherlock, Anna Fowler	<i>SS</i>	5½	Madison, Indiana
Sherman, Carl Lee	<i>CE</i>	108	Sandoval
Sherrick, John Chauncey	<i>A</i>	111	Monmouth
Shields, Eugene Clifton	<i>SS</i>	108	Summum
Shields, John Erwin	<i>Agr</i>	71	Lewiston
Shields, John P	<i>AE</i>	112	Washington, Iowa
Shilling, Franklin William	<i>Bus</i>	60	Decatur
Shing, Chi Ting	<i>RCE (SS)</i>	27	Changsha, China
Shipman, Mina Pearle	<i>HS Agr</i>		Urbana
Shively, Walter Scott	<i>ME</i>	110	Chicago
Shoemaker, James Wright	<i>LAS</i>	70	Charleston
Sholem, Jerome	<i>Bus</i>	30	Paris
Shonkwiler, Francis Lucian	<i>ME</i>		Monticello
Shonle, Horace Abbott	<i>Ch</i>	70	Tuscola
Shonts, Turrill Dean	<i>Bus (SS)</i>	96	South Bend, Indiana

Shook, Charles Harmon	AE	78	Carter, Arkansas
Shook, Charles Wheeler	LAS	105	W. La Fayette, Indiana
Shott, Ruth Elma	HSLAS (SS)	34	Urbana
Shriver, Helen Elizabeth	HSAgr (SS)	35	Champaign
Shrum, Edmond Jerome	Agr		Valley City, North Dakota
Shup, Laurence Edgar	EE		Newton
Shurtleff, Raymond Shryock	Med	30	Cuba
Shy, Frank Spain	Bus		Olney
Sidell, Roscoe Roy	SS		Shreve, Ohio
Siebens, Arthur Robert	Agr	104½	Mionok
Siebertthal, Maud, A. B. (Ind. Univ.) 1906	Lb		Bloomington, Indiana
Siegel, Isaac	L		Chicago
Siegmund, Humphreys Oliver	EE	47	St. Louis, Missouri
Siemens, Anne Blanchard	LAS		Kansas City, Missouri
Siemens, Webb Mellin	A	78	St. Joseph, Missouri
Signor, Nelle Marie, A. B., 1912	Lb	33	Urbana
Silbermann, Oscar Emil	CE	72	Homewood
Silkman, John Mead	MnE	108½	Baltimore, Maryland
Silver, Milton Gans	LAS	33	Champaign
Silverman, Isadore	Agr	15½	Chicago
Simmons, Guy Andrew, A. M. (Yale Univ.) 1907	SS		Conway, Arkansas
Simmons, Sidney Britain	Agr		Fayetteville, N. C.
Simmons, Theodore Switzer	Agr	66	St. Charles
Simms, William Henry	Agr	81	Gibson City
Simon, Walter Henry	A	108	Quincy
Simons, Raymond Samuel	LAS		Chicago
Simons, Rayna De Costa	Agr	53½	Chicago
Simpson, Earl Bruce	L		Eldorado
Simpson, John Milton	MSE	18	Vincennes, Indiana
Simpson, Laurance Packer	MnE		Onawa, Iowa
Simpson, Luther Franklin	ME	37	Morwaqua
Simpson, Mary Alice	Agr	69¼	Cincinnati, Ohio
Simpson, Sebastian Solon	SS	22	Pana
Simpson, Thomas Moore	Agr Sp	34	Alexis
Sims, Clarence Edgar	ChE	107	Chicago
Sims, Delbert Edward	LAS	12	Newton
Sinclair, Ovid Eugene	EE	35½	Mazon
Singh, Brij Kishore	Agr		Calcutta, India
Singh, Charn Jit	EE (SS)		Mastwana, Sangrur, India
Singleton, James Hubert	Agr		Buckley
Sipe, Raymond Erwin	Agr		Rochelle
Sisson, Earl	Agr		Factoryville, Pennsylvania
Skadden, Harvey F	A	134	Danville
Skaer, Edwin William	SS	8	New Athens
Skaggs, Allen Orrin	L Sp		Shipman
Skelton, Charles Leonard	Agr	98	Urbana
Skemp, Samuel Charles, Jr.	Agr		Maywood
Slack, Herbert Lee	CE	72	Chicago
Slack, William Silas	EE		Salem
Slade, Frederick Lyman	Med		Washington, D. C.
Sladek, Robert Bohumie	Agr		Cicero
Slater, Frank Clifton, A. B., 1914	L	34	Cherry Valley
Slater, Maynard Elmer	Agr	106	Belvidere
Slayton, Willis Francis	Agr	67	Tulsa, Oklahoma
Sleezer, Lucile Burlew	LAS	17	Yorkville
Sloan, Amelia Marie	HSAgr	31	Champaign
Sloan, Georgia Ona, A. B. (Ill. Wesleyan) 1914	Lb		Bloomington
Sloan, William Finlay	Agr (SS)	64½	Penville, South Dakota
Slough, Howard Austin	SS	8½	Abingdon
Smalley, Louis Arthur	Bus	23½	Litchfield
Smalley, Robert Claire	Agr		St. Petersburg, Florida
Smallwood, J P	Bus	30	Decatur
Smart, Chauncey Harrison	Agr	25	Hinsdale
Smedley, Mrs. Orah Kimbar	Mus sp		Champaign
Smiley, Lionel David	EE	66	Woodstock
Smith, Bryan Arthur	Med		Sullivan
Smith, Charles Eugene	CE	90	Chicago
Smith, Clara Mabel	LAS	6	St. Clair, Michigan
Smith, Clarence Walter	LAS	33	Decatur
Smith, Dey Bertsch, A. B. (Miami Univ.) 1911	Lb		Hamilton, Ohio
Smith, Edwin Allan	REE	67	Chicago
Smith, Elizabeth Morree	Mus	104	Urbana
Smith, Everett William	Cer		Geneva
Smith, Forest Henry	EE		Libertyville
Smith, George Leslie	Agr	32	Geneseo
Smith, George Sanborn	LAS	23	Chicago
Smith, George Walter	AE	103	Wilber, Nebraska
Smith, Gladys May	LAS	107	Champaign
Smith, Glenn Calvin	Agr	63	Cuba
Smith, Glenn Collins	Agr	31	Greenfield

Smith, Harry Curtis	MSE	31	Monroe, Iowa
Smith, Harvey John	MnE		Louisville, Kentucky
Smith, Hawley Lester	MnE	15½	Clifton
Smith, Herbert Edgar	LAS	86	Ontario, Canada
Smith, Hubert Argo	A	66	Urbana
Smith, Irene Fern	Ch (SS)	86	Red Bud
Smith, Irene Suzana	SS		Maywood, Pennsylvania
Smith, Jacob Allen	LAS		Altoona, Pennsylvania
Smith, Jesse Parker	Cer		Depue
Smith, John Wesley	ME	36	Geneseo
Smith, Julian Francis	Ch	72	Champaign
Smith, Kenneth	LAS		Chicago
Smith, Leonidas Logan	A		Effingham
Smith, Luella Leilla	Mus	2½	Byron
Smith, Marshall	SS	8	Decatur
Smith, Marshall Coughenour	Agr		Jeffersonville
Smith, Mary Magdalene	SS		Crookston, Minnesota
Smith, Mary Parnell	HSAgr	4½	Cuba
Smith, Merle Le Roy	LAS	45½	Freeport
Smith, Paul Miller	Agr	109	Lincoln
Smith, Philip	A		Austin, Minnesota
Smith, Ralph Lindon	LAS		Bellflower
Smith, Raymond Charles	Agr		Amboy
Smith, Robert Harold	MSE	18	Wauwatosa, Wisconsin
Smith, Royal Lee	Cer	56	Toledo, Ohio
Smith, Sidney Hillard	Bus	17½	Freeport
Smith, Stewart Tracey	AE	112	Rose Hill, Iowa
Smith, Theodore Hammond	Med		Godfrey
Smith, Valda Eveline	HSLAS		Geneseo
Smith, Wilhelma Zoe	LAS	67	Champaign
Smohl, Barbara Belle	LAS	31	Vandalia
Smoot, Elizabeth Ellice	Mus	105	Fithian
Smoot, William Everett	Agr	28	Petersburg
Snell, Clarence Eastlake	Bus		Oak Park
Snell, Harry Stirling	ChE		Oak Park
Snoddy, Raymond Leffel	LAS	79	Danville
Snook, Earl William	Agr		Ottawa
Snook, Helen Carpenter	Mus		Boswell, Indiana
Snook, John Donald	ChE	115	Boswell, Indiana
Snyder, George	CerE		Altoona, Pennsylvania
Snyder, Glenn	Agr	63½	Billet
Snyder, John Francis	Agr		Billet
Soderberg, Harry	AE (SS)	41	Florence, Wisconsin
Soenksen, Paul William	Bus		Harvey
Somers, Aloysius Joseph	Agr		Kankakee
Somers, Francis Patrick	ChE		Kankakee
Sorenson, Alfred	Agr (SS)	68	Cameron
Sortwell, Harold Haynes	CerE		Indianapolis, Indiana
de Souza, Jacy Tolleentino	EE		San Francisco, California
Soto, Rafael Arcangel, B. S., 1912	LAS (SS)		Sabana Grande, Porto Rico
Sowers, Gordon Alfred	Agr		Kingman, Indiana
Spalding, Marjorie Mae	Mus	30	Champaign
Spangler, Charles Foskey	Bus	22	Amboy
Spear, Harry George	SS	25	Rankin
Spencer, Cynthia Eugenia	LAS (SS)	26	Champaign
Spencer, Mary Ethel	LAS	56	Champaign
Spencer, Ralph William	Agr		Lawrenceville
Spencer, Victor Elwin	Agr	102½	Lockport
Sperry, Ralph	Bus		Macomb
Spink, Philip Marion	Bus		Chicago
Spitz, Milton Joseph	ChE	28½	Chicago
Sprague, Norman Ellsworth	CE		Piqua, Ohio
Sproull, Raymond Arthur	LAS	30	Mazon
Sprowls, Luna Lenore	SS	91½	Gibson City
Squibb, Reginald Gardiner	ChE (SS)	21	Chicago
Squier, George Kasson	ME	64	Rockford
Stafford, Louis Daniel	Agr		Harvard
Stahl, Walter Andrew	ME	82	Chicago
Stall, Willis Preston	Agr	32	Champaign
Stamas, Theodore Albert	LAS		La Grange
Stanfield, William Wesley	SS	10½	Manhattan, Kansas
Stangel, Victor	LAS	12	Champaign
Stanley, Leon	Agr	27½	Downers Grove
Stanley, Walter	Bus	30	Anderson, Indiana
Stants, Bess Edna	LAS	35	Oblong
Stapler, William W	ChE	192	Wilmington, Delaware
Staples, Alexander Dale	RCE		South Bend, Indiana
Staples, John Forest	Agr		South Bend, Indiana
Stark, John Edwin	LAS (SS)	89	Urbana
Starkel, Charles Leslie	LAS		Belleville
Starkey, Albert Lyle	SS	53½	Pesotum
Starner, Verner	Ch	64	Carlisle, Indiana
Starrett, David Burnham	Agr	28½	Elgin
States, Mary Louise	LAS		Urbana

Stauder, Edward P	EE	13	St. Louis, Missouri
Stebbins, Selden Lewis	LAS	121	Chicago
Steele, Mead Irving	LAS		Edwardsville
Steenburg, Walter Carlyle	Agr		Farmington
Stein, Bertha Marie	HSLAS		Blue Island
Steinbreder, William John	SS	152½	St. Louis, Missouri
Steinhoff, Carl Ferdinand	Med	37	Chicago
Steinmayer, Alwin Gustave	EE	7½	La Salle
Steinmayer, Reinhard A J	Cer	6½	La Salle
Steinmetz, Ferdinand Henry	Agr (SS)	162½	Edwardsville
Steinmeyer, Herbert A	Bus		St. Louis, Missouri
Stene, Ole	ChE	59½	Elgin
Stensel, Harlow	EE		Farmer City
Stephens, Mary Ethel	HSAgr		Urbana
Stephens, Thomas Earl	Agr	31	Champaign
Stephens, William	EE		Champaign
Stephenson, Edward	LAS	21	Kalamazoo, Michigan
Stephenson, Juanita Alice	HSAgr		Sparta
Stephenson, Marvin Schutte	A	33	Green Bay Wisconsin
Stern, Jay Lavenson	Agr (SS)	92	E. Las Vegas, New Mexico
Sternberg, Bert Ludens	Agr	98	Fulton
Sterling, Frank Hugo	Agr sp	30½	Bloomington
Stevens, Edith Hasseltine	HSAgr	37	St. Louis, Missouri
Stevens, Mrs. Adeline Chapman	LAS		Marietta, Ohio
Stevens, Helen Gordon	LAS	31	St. Louis, Missouri
Stevens, Marie Felicia	HSLAS		St. Louis, Missouri
Stevens, Robert Gardiner	ME		Chicago
Stevens, Vernon Thompson	L		Corpus Christi, Texas
Stevens, Wentworth Holt	Agr		Urbana
Stevens, William Corley	SS	78	Marshall
Stevenson, Ailsie Miller	HSAgr	32	Peoria
Stevenson, Edward Hiel	Agr	3½	Elvaston
Stevenson, Fred Luther	AE		Galesburg
Stevenson, George Augustus	Med (SS)	81	Harvey
Stewart, Earle Henry	ME	110	St. Louis, Missouri
Stewart, Edward Paul	LAS		Harvey
Stewart, Frank	Med (SS)	30	Champaign
Stice, Henry Sylvester	LAS (SS)	102	Urbana
Stice, Kenneth Seymour	Cer	7½	Urbana
Stickler, Charles Arthur	Agr (SS)	38	Canton
Stiegemeier, Clara	LAS		St. Louis, Missouri
Stiles, Le Roy Christie	Bus	32	Oak Park
Stillwell, Helen	LAS	53	Urbana
Stinson, Ira S	MSE	107	Champaign
Stinson, Mary Edna, A.B. (Western Coll. for Women) 1909	SS	7	Champaign
Stinson, Rita	HSAgr (SS)	63½	Champaign
Stipp, Blanche	Mus	103	Champaign
Stiritz, Benjamin Andrew	Agr		Murphysboro
Stirton, James Crear	CE	78	Chicago
Stitt, Raymond DeVries	EE	132	Chicago
Stockdale, Thomas Elmer	CE	36	Chicago
Stocker, Harry Frederick	CE	75	Highland
Stoddard, George Wellington	AE	35	Milwaukee, Wisconsin
Stoddard, Mabel Frances	LAS	43	Washington, D. C.
Stoffel, Clarence Milton	CE	105½	St. Louis, Missouri
Stoll, Laura Louise	LAS	9	Chicago Heights
Stoltey, Ethel Lynette	LAS		Urbana
Stone, Albert Getten	AE	79	Chicago
Stone, Charles Holmes, A.M. (Univ. of Georgia) 1913	Lb	8	Athens, Georgia
Stone, Ruth Elizabeth	SS		Newman
Stopp, Gerald Darfield	LAS	99	Plainfield
Storer, Esther Susie	LAS		Centralia
Storey, F Stanley	Bus		Rockford
Stout, Earl Boyd	ME	110	Elgin
Stoutenborough, George	Bus		Maroa
Stoutzenberg, Florence Thomas	HSAgr	51	Greenville
Stover, Earl Bertram	EE		Oak Park
Straight, Merton Taunor	Agr	20	Fonda, Iowa
Strang, Robert Leon	Agr	102	Antioch
Strathern, N Grant	Bus		Chicago
Stratton, Bernice Elizabeth	HSLAS	48	Chicago
Straub, Ernest J	SS	5	Kansas City, Missouri
Straub, Walter Fred	ChE		Chicago
Strawbridge, Ernest Thomas	SS	2½	Danville
Strawn, Robert Emerson	Agr sp		Pleasant Plains
Streat, Consuela Elvira	HSLAS		Bellville
Streed, Felix Lewis	CE		Waukegan
Strehlke, Albert LaPool	LAS		Meeker, Colorado
Stretch, Lenna	Bus		New Castle, Indiana
Strickland, Ray Malcolm	Agr	81	Urbana
Stringer, Joseph Kenneth	Bus	23½	Dubuque, Iowa

Stroheker, Frank Sewall	L	11	Barry
Strong, James Kibbe	Agr	30	Keithsburg
Strong, Jesse Woodford	Agr		Canton
Strong, Robert Ambrose	MnE (SS)	125½	South Bend, Indiana
Strong, Truman Jefferson	A	62½	Spokane, Washington
Strong, William Augustus, A.B., 1914	Agr		Joliet
Strouse, Lena	SS		Ipava
Strubinger, Loraine Clarence	Bus		Barry
Struever, Carl Chester	Ch		Peru
Stubblefield, Ansel Fifer	Agr sp		McLean
Stubblefield, Buford Matthews	Ch (SS)	106½	Bloomington
Stubenrauch, Edgar Albert	AE		Sheboygan, Wisconsin
Stumpf, Elmer Henry	Bus	59	Chicago
Sturm, Clark Henry	EE		Elgin
Sullivan, Nicholas Cyril	SS	6½	Chicago
Summers, Abel Ross	EE	133½	Champaign
Sun, Eu-lin	Agr		Washington, D. C.
Sundell, Roy Dehm	ME	71	Oncida
Sunny, Arthur Edward	LAS	11½	Chicago
Suppes, Elsie Mabel	LAS	22	Somonauk
Supple, Winifred May	HSAgr	29	Deerfield
Sutcliffe, Constance	LAS		Urbana
Sutcliffe, Dorothy	LAS (SS)	40	Urbana
Sutcliffe, Marjorie	HSLAS (SS)	91½	Urbana
Sutherland, Robert James	Bus	60	Platteville, Wisconsin
Sutherland, Wilbor Mills	Agr	69	McNabb
Sutton, Frank Howard	Bus (SS)	64½	Chicago
Sutton, Nora	LAS		Oakland
Sutton, William Henry	LAS	2½	Washington, D. C.
Swaim, Earle Frank	LAS		Fithian
Swaim, Donald Tyler	Bus	29	Danville
Swam, Harry Clifford	Agr	32	Hallville
Swanberg, Edmund De Forest	EE		Worthington, Minnesota
Swanberg, Mariou Goerz	HSLAS		Chicago
Swank, Edith Ann	LAS	100½	Houston, Texas
Swanson, Frances Eleanor	LAS	56	Urbana
Swanson, Norvid Raymond	Agr	70	St. Charles
Swanson, Ralph Arthur	Cer	31	Streator
Swanson, William August	CE	61	Chicago
Swartwout, Edgar Chessman	Agr	66	Elgin
Swartz, Fay Wood	Mus	33	Urbana
Swartz, Leon Frank	Agr (SS)	91	Urbana
Swearingen, Clara	SS		Champaign
Sweeney, Arthur Frantz	Bus		Chicago
Sweeny, Perry Jerome	EE	110	Caledonia
Sweet, Orville Roberts	Agr		Sherman
Sweney, Merle Arthur	LAS		Prairie City
Swengel, Lloyd Raymond	SS	7	Neoga
Swenson, Carl Elmer	ME	50	Chicago
Swett, Lewis Wentworth	EE	67	Springfield
Swick, Curvella H	Bus	32½	Galton
Swick, Mary Ethel	LAS	98	Urbana
Swick, Nellie May	LAS	60	Urbana
Swickard, Niza Ethel	SS	7½	Newman
Swift, Gertrude Lucie	LAS		Streator
Swigart, Alta Caroline, A.B., 1910	Lb	26	Champaign
Swigart, Blanche Belle	SS	48	Rapatee
Swigart, Faith Gretchen	LAS	32	Champaign
Swindler, Henry	LAS		Magnolia
Swindler, Rollin Leland	Agr	3½	Magnolia
Switz, Marquerite Maud	LAS	68	Terre Haute, Indiana
Swope, Russel Claude	Bus	106	Kankakee
Swormstedt, Leroy	ME		Lockland, Ohio
Taggart, Clementine	LAS	66	Wooster, Ohio
Taggart, John Finley	Agr	32	Wooster, Ohio
Taketa, Shiro	EE	95	Hiroshima, Japan
Talbert, Harold Arthur	Bus	100	Garrett, Indiana
Talbot, Rachel Harriet	LAS		Urbana
Tanner, Rudolph Harrison	Agr		Kankakee
Tanner, Thomas Sheridan	AE	63	Dwight
Tanton, Glenwood Charles	Agr	14½	Washington
Tapping, Charles Hawley	AE	126	Peoria
Tarnoski, Alexander Stephen	AE	127½	Chicago
Tate, James Alfred, B.S., 1914	SS	7	La Junta, Colorado
Tatsch, Walter Karl	CE		Chicago
Taulbee, Horton Mills	CE		Hillsboro
Taylor, Charles Bagwell	CE	36	Manistee, Michigan
Taylor, Edwin George	Bus	57	Burlington, Iowa
Taylor, Grace DeEtte	HSAgr	23	West Plains, Missouri
Taylor, Harold Albert	Agr		Chicago
Taylor, Heber Charles	SS	14½	Charleston
Taylor, Inglis Mitchell	Ch		Harrisburg
Taylor, Laurence Righter	LAS		Indianapolis, Indiana

Taylor, Lilian Catherine	HSAgr	124	Negaunee, Michigan
Taylor, Max	LAS	35	Pryor, Oklahoma
Taylor, Milo Cornelius	CE	125	Champaign
Taylor, Norris Onslow	ChE		Geneseo
Taylor, Roy H	Agr		Bismarck
Taylor, Roxie Lelah	SS	6	Battle Ground, Indiana
Taylor, Thomas C	Agr		West Plains, Missouri
Taylor, Townsend John	SS	45½	Owensboro, Kentucky
Taylor, William Mitche'l	Agr	89	Champaign
Teasdale, John Warren	A	36	St. Louis, Missouri
Teeters, Boyd Samuel	EE		Tekonska, Michigan
Teeters, Mary Etta	HSLAS	30	Auburn, Indiana
Teets, Robert Jason	EE		Wyoming
Teixeira, Emilio Alves	MnE	58½	Cassia, Brazil
Tendick, Frank Hulit	ChE	69	Canton
Tener, Emilie Randall	HSLAS	29	Cleveland, Ohio
Tener, Katherine Randall	LAS	35	Cleveland, Ohio
Ten Eyck, Lloyd Ellis	Agr	33¾	Rockford
Terril, Clarence Thomas	L	54	Champaign
Terry, Robert Isaac	Agr	53	Indianapolis, Indiana
Teter, Harry Arthur	Med		Chicago
Thal, Olga Elizabeth	LAS (SS)	74	Champaign
Thatcher, De Witt Wesley	Agr	95	St. Charles
Thatcher, Frederick Robert	EE	32	Elgin
Thiele, Ross Henry	A	47	Ramsey
Thieleman, William Carl	CE		Chicago
Thies, Walter Fred	Bus		St. Louis, Missouri
Thom, James Dale	LAS	99	Sioux City, Iowa
Thomas, Abner Royce	Agr	70	Big Rock
Thomas, Charles Fredrick	Med	67	Argenta
Thomas, Clair Joel	Agr	76	La Harpe
Thomas, Eliza	SS		Weldon
Thomas, Glen Herbert	A	55	Waterville, Kansas
Thomas, Harry A	Agr		Rockford
Thomas, Joe Lee, A.B., (Lake Forest Coll.) 1912	Agr	118	Champaign
Thomas, James William	Bus		Anna
Thomas, Maurice Loyd	EE (SS)	68	St. Louis, Missouri
Thomas, Polly Elizabeth	HSLAS (SS)	66	Big Rock
Thomas, Ralph Raymond	EE	79	St. Louis, Missouri
Thomas, Robert Ellsworth	CE	119	Rockford
Thomas, Stanley Jeremiah	MSE	85	Vincennes, Indiana
Thompson, Everett Bragg	LAS	17	Tuscola
Thompson, Fleta	HSLAS		Carrier Mills
Thompson, Francis	SS	135	Pinckneyville
Thompson, Fred Leo	LAS		Garrett
Thompson, George S	Bus	30	Kankakee
Thompson, James Arthur, B.S., 1905	Agr		Rushville
Thompson, Lillian Maud	HSLAS	94	Chicago
Thompson, Orlando Stephen	Agr	32	Harvey
Thompson, Russell Hopkins	Bus	33	Sullivan, Indiana
Thomsen, Marvin William	Bus	17	Fulton
Thomson, Lillian Euphemia	LAS		Creston, Iowa
Thor, Alfred Ulmo	Agr sp		Rollo
Thorndike Clara Louise	HSLAS	100	Austin
Thorne, Charles Thomas, Jr.	Agr sp		Spencer, Indiana
Thorne, Frank Hilton	Agr	87½	Berwyn
Thorne, Laurence Emerson	Agr	104	Huntington, Indiana
Thornsburch, Zada Goff	LAS		Urbana
Thorp, Veta	LAS	40	Clinton
Thorud, Bert Marshall	AE	2	Chicago
Threlkeld, James Graydon	Agr		Decatur
Thurlow, Henry Plummer	Agr	34½	Lynn, Massachusetts
Thurston, Alfred William	Agr	23	Champaign
Thurston, Estelle Lenore	LAS (SS)	113	Terre Haute, Indiana
Thurston, Henry Winfred, Jr.	Agr	99½	New Milford, New Jersey
Ticknor, James Hotchkiss	AE	63½	Peoria
Tiffany, Herbert Chassee	Agr		La Grange
Tiffin, Joseph Dew	Agr		Walshville
Tiley, Pearl May	SS	4	Belleville
Tillotson, Ella	LAS	31	Roswell, New Mexico
Tillson, Arthur Edward	ChE	58	Naperville
Tillson, Vivian Earle	Ch		Naperville
Tilton, James Fredric	Agr		Hoopeston
Tilton, Leon Deming	Agr	111	E. St. Louis
Tilton, Walter Joseph	Ch	62	Fairmont
Timmerman, Frederic Harris	Agr		Champaign
Tinkey, Guy Henry	ME		Decatur
Tinkey, Otto George	EE	70	Decatur
Tipple, Ruth	SS		Payson
Todd, Ethel	LAS	96	La Harpe
Todd, Robert Ivan	Agr		Michigan City, Indiana
Todd, Malcolm Newton	SS	137½	Tunnelton, Indiana

Tokuiyama, Sotaro	Ch	77	Shiznoka, Japan
Tolmie, Thomas William	AE	51	Manchester, Iowa
Tombaugh, Glen Deah	Agr		Pontiac
Tomlin, Edwin Thomas	Agr sp		Springfield
Tomlin, Harry Capps	Agr sp		Pleasant Plains
Tompkins, Elmer Judson	SS	39	Eagle Grove, Iowa
Tompkins, Ralph Hawthorne	LAS		Eagle Grove, Iowa
Thompkins, Roy Woodruff	CerE	10	Joliet
Tong, Teh-Chang Yee Cheng	Bus (SS)	15	Yung Chow Foo, China
Torian, Robert C	Bus	5	Evansville, Indiana
Tornquist, Alpha Caroline	HSLAS (SS)	58	Champaign
Torrence, Howard John, A.B. (Monmouth Coll.) 1910	SS		Monmouth
Tower, Alexander McJunkin	REE	30	Ft. Wayne, Indiana
Tower, Carleton Myron	Bus		Beloit, Wisconsin
Townsan, George Leland	AE		Urbana
Towson, Irene	LAS	102	Macon
Tracy, Elizabeth Lail	HSLAS	63	Anderson, Indiana
Tracy, Paul Hubert	Agr		Paris
Trapp, Edwin Stewart	AE		Des Moines, Iowa
Traxler, Elinor Evangeline	LAS		Urbana
Trakler, Ivan W	Agr		Urbana
Treat, Gladys Annie	SS	8	Oberlin, Ohio
Tredup, Walter Edward	Bus		Chicago
Treichel, Chester	Cer	63	Kankakee
Trelease, Sidney Briggs	Bus (SS)	33	Urbana
Trevelyan, Helen Elizabeth	SS	23½	Chicago
Trickle, Lenox Edmond	AE		Rantoul
Tritt, Francis Irene	HSLAS	98	Pontiac
Troeger, Philip Theodore	Agr	69	Storm Lake, Iowa
Trost, Opal Winifred	HS Agr	66	Urbana
Troster, Marion Collier	Med		Bellflower
Troster, Oliver John	Agr (SS)	60½	Bellflower
Trout, Clement Eddy	Agr (SS)	41	Urbana
Troutman, Mary Elizabeth	SS	7	Charleston
Troutman, William Chilton	SS	9	Carl Junction, Missouri
Trowbridge, Charles Edgar	MSE	91	South Bend, Indiana
Trowbridge, Charles Leslie	Agr	99½	Crete
Trowbridge, Mary Luella	LAS	97	Green Valley
Trowbridge, William Oliver	Agr		South Bend, Indiana
Troxel, Floyd Esworth	ME	75	Minonk
Troy, Mary Zeliaette, A.B. (Univ. of Alabama) 1912	Lb	47	Tuscaloosa, Alabama
Truman, Edna, B.S., 1907	SS		Urbana
Trumbo, Silas Max	AE	78	Pontiac
Tsao, John Mou Chuan	SS	21	Hong Kong, China
Tschentke, Herman Louis	SS	7½	Crescent City
Tsen, Bei Chang	CE (SS)	37	Ling Young, China
Tu, Ching Fang	MnE		Kirin, China
Tucker, Lawrence Edward	SS	8	Greencastle, Indiana
Tucker, Rolland Henry	Agr		Minonk
Tuell, Wallace Gerry	EE	48	Canton
Tukey, Harold Bradford	Agr		Berwyn
Tupper, James Oliver	Agr	71½	Woodstock
Turlay, Anna Marie	LAS	104½	Clinton
Turley, Harold Edwin	Agr		Burney, Indiana
Turnbull, Ida Caroline	SS		Carlinville
Turner, Charles Edward	LAS	35	Mt. Sterling
Turner, Chester Charles	Agr	34	Champaign
Turner, Hazel May	HSLAS		Richmond
Turner, James Craigmile	Agr		Loda
Turner, Luther Martin	EE	37	Beardstown
Turnquist, Ivan William	Agr		Chicago
Tuthill, James Pierce	CE	27	Elgin
Tuttle, Coy Rathbone	Agr	10	McLean
Tuttle, Lowell Hafner	Agr	34	Oak Park
Tyhurst, Ora Everett	Agr		Martinville
Tyler, James Hersey	CE	39	Charleston
Tylski, Walter William	ME	33	Chicago
Underwood, Eugene	LAS		Chicago
Unger, George Walter Adol h	A		Oak Park
Uphaus, Bruce Richard	ME	111	Chicago
Urbain, Lottie Octavia	HSLAS	81	Du Quoin
Usis, Felix Max	EE	10	Niles
Utiley, Nelson Monroe	Bus		Chicago
Utt, Arthur Holliday	ChE		Springfield
Utter, Henry Benjamin	AE	14	Missoula, Montana
Valentine, George Snow	Bus		Evanston
von Valtier, Ralph Paul	ME	75	Chicago
Van Cleave, Bruce	LAS	31	Springfield
Van Cleave, Charles McCabe	SS	30	Olney
Van Cleve, Wallace	Agr		Springfield
Van Dam, Ernest	SS	5½	Ludlow

Vander Mark, Walter Joseph	ChE		Champaign
Vandaveer, Harriet	SS		Greenfield
Vanden Boom, Gerry Christopher	ME (SS)	74	Quincy
Van Densen, Arthur Stowe, Jr.	LAS		Evanston
Van Doren, Theodore Joseph	LAS		Springfield
Van Dyke, Earl Henry	Agr	34	Plainfield
Van Frank, Elliott Dudley	A	66½	Danville
Van Meter, Craig	LAS	33	Mattoon
Van Natter, Francis Marion	LAS	65	Muncie, Indiana
Vanneman, Mrs. Harry Walter	SS		Urbana
Vanneman, Russel William	Bus		Urbana
Vansant, Rodman Fleming	Agr (SS)	59	Chicago
Vansant, William Laurence	ME	108	Chicago
Van Sickler, John Russel	CE		Roanoke, Virginia
Van Winkle, Paul Keith	Bus	29	Chicago
Van Winkle, Stephen Niel	A		Henderson, Kentucky
Varner, Joe Woodyard	Agr		Paris
Vaughan, Fred Nathan, Jr.	Agr		Amboy
Vaughan, Glenn Poland	Bus (SS)	97½	Amboy
Vaughan, John Edward	LAS sp		Little Rock, Arkansas
Vaughan, Robert Edward	SS		Crawfordsville, Indiana
Vaughn, Emerson	Agr		St. Louis, Missouri
Vaughn, Howard Flaghn	A		Urbana
Vaughn, Myra	HSLAS	62	Urbana
Vear, Leonard Ray	Agr		Chicago
Veirs, Willard Lewis	Med		Urbana
Velde, Henry Richard	Agr		Pekin
Velde, Karl Everett	Bus	49	Pekin
Vernon, Maris Hurford	CE	37	Moline
Vial, Harold Craigmile	Agr		La Grange
Vibelius, Siegfred Nathaniel	A	78	Joliet
Vining, Robert Jefferson	Agr		Kankakee
Vissering, Elkhart Bernhard	LAS		Minonk
Vocks, Forrest	Bus		Rockford
Vogele, Alfred Charles	Agr		Assumption
Volk, Alven Claude	CE (SS)	75½	St. Louis, Missouri
Volk, William Joseph	CE		Chicago
Volstorff, Fred Albert	ME		Elgin
von Voltier, Ralph Paul	ME		Chicago
Voorhees, Lawrence Elmer	LAS	71	Alton
Voorhees, Vandevere	CE		Alton
Vopicka, Fred Frank	AE	39	Chicago
Vorwald, Edmund	Agr		Edwardsville
Voss, Anna	Mus	25	Champaign
Vovesny, Joseph Paul	Med		Chicago
Vroom, Quimby	Bus		Mason City, Iowa
Waddington, Glenn George	ME		Decatur
Wadleigh, Theodore	Agr	37	Herscher
Waggoner, Karl Marshall	A	39	Decatur
Wagner, Alexander	Bus	100	Chicago
Wagner, Charles Arthur, Jr.	EE		Springfield, Missouri
Wagner, Ernst Harrison	SS	8	Ashton
Wagner, George William	ME		Peoria
Wagner, Kenneth	AE		Belleville
Wagner, Ralph Russell	Ccr	68	Pontiac
Wagner, William Andrew	CE	108	Champaign
Wagstaff, Charles Dudley	Agr		Fiston, Indiana
Wahlin, Vendla, A.B. (Bethany Coll.) 1913	Lb		Lindsborg, Kansas
Wainwright, James Butler	ME	110	Winchester
Wakefield, George Mincke	CE (SS)	49	Alma
Wakeland, Fred Raymond	Agr		Hoopeston
Wakeland, Guy Earl	Agr	30	Hoopeston
Wakeley, John Everett	SS		Danville
Waldo, John Hardenbergh	SS	3	Champaign
Wales, Frank Spear	Agr		Polo
Walker, Carle Capron	Agr	107½	Clinton
Walker, Frank Abram	Agr	27	Aurora
Walker, George William	Agr	69	Mackinaw
Walker, Helen	HSLAS		Clinton
Walker, Jennie Grace	SS	84½	Cicero
Walker, John Sawyer	A	103	Aurora
Walker, Mae Ella	HSLAS		Aurora
Walker, Nelle	LAS		Carterville
Walker, Stanton	CE	37	Champaign
Walkerly, Dorothy Keziah	Bus (SS)	105	Urbana
Walkerly, Margaret Magdalene	Bus	26½	Urbana
Wallace, Edgar Dearborn	Bus (SS)	67	Chicago
Wallace, Lewis Bryant	Bus	52	Homer
Wallace, Paul Samuel	EE		Savanna
Wallage, Stanley Tiffin	SS	121	Paris
Waller, Richard Valentine	LAS	67½	Elkhart, Indiana
Wallis, Edward	Agr sp		Urbana
Walmer, Joseph Charles	Bus	32	Cairo

Walraven, Wesley Burnham	CE	74	Centralia
Walser, Frank Emil	LAS	1424	New York City
Walser, Stephen Albert	Agr	49	Brooklyn, New York
Walsh, Earl Joseph	AE		Kankakee
Walsh, Edward John	LAS		Herscher
Walsh, John Edward	EE	60	Peoria
Walsh, Leo Bernard	Agr	34	Rantoul
Walters, Harvey Henry	A	122	Beach, North Dakota
Walters, Linzy Ellsworth	SS	10	Newark, Ohio
Walters, Prentice Therman	LAS	36½	Macomb
Walton, Albert Malcolm	SS	9	Browns
Walton, Howard Roberts	Bus	31	Champaign
Walton, James Kelly, Jr.	Agr	54½	Anna
Walton, James Nathaniel	Agr	24	Browns
Walworth, Ralph Waldo	Agr	99	Urbana
Walworth, Stanton Eugene	Agr		Urbana
Walz, Ida Emily	LAS	53	Danville
Wamsley, Adalaid May	HSAgr		Quincy
Wandrack, Lura May	SS		Woodstock
Wang, Ching Wu	Agr		Honan, China
Wang, Kung-Kuan	LAS	58	Shanghai, China
Wang, Te Chang	Agr	69	Soochow, China
Wanzer, James Marshall	Agr	75	Oak Park
Warbritton, Hattie	SS	4	Ladoga, Indiana
Ward, Amy	HSLAS	63	El Paso
Ward, Cecilia Blair	LAS	28	Urbana
Ward, Frank Howard	Agr		Dewey
Ward, Janet	HSLAS	3	Chicago
Ward, Mamie Lawrence	LAS	93	Chicago
Ward, Mary Myrtle	SS	16½	Glasgow
Ward, Mary Winifred	LAS		Saybrook
Ward, Ruth	LAS		Crescent City
Ware, Manierre Barlow	Agr	33	Chicago
Warford, David Arthur	Bus	6	Elizabethtown
Warinner, Mabel Straube	Mus		Urbana
Warmolts, Cornelia Sara	HSLAS		Oregon
Warmolts, Lambertus, Jr.	CE	51	Oregon
Warner, Earle Eugene	EE (SS)	107	Manito
Warner, Harry Somes	Agr sp		Vincennes, Indiana
Warner, Lucy	LAS		Argos
Warnock, Harper McDill	Agr	83½	Little York
Warnshuis, Edward John Henry	Bus		Oak Park
Warren, Daniel Edwin	Agr		Belvidere
Warren, Paul Wilbur	Bus		Ft. Wayne, Indiana
Warren, Ralph Rowe	CE		Lo Salle
Warren, Thomas James	CE		Pawpaw
Washburn, Charles Sidney	EE (SS)	108	Lenox Dale, Massachusetts
Washburn, James William	ME	33	Lenox Dale, Massachusetts
Washburn, Raymond Allen	A		Kewanee
Wasson, Lorain Arthur	MnE		Harrisburg
Waterbury, Leslie Abram, C.E., 1905	AE		Polo
Waterman, Louise Hale	LAS	27	Chicago
Watson, Harry Francis	Ch	40	Granite City
Watson, Hazel Fitch	SS		Hammond, Louisiana
Watson, Jane Coulson	LAS	101	Champaign
Watson, John Wesley	Agr	75	De Kalb
Watson, Lelia Elta	HSLAS	61	Champaign
Watson, Minton William	ME	61½	Champaign
Watson, Newton Everett	Agr		Chrisman
Watson, Ray Marcus	Agr		Cobden
Watt, Margaret Louise	SS		Winchester
Watt, Russel A.	A		Florence, Wisconsin
Watts, George William	ME	110	Urbana
Wead, DeForest Emery	CE	49	Peoria
Wead, John Trimmer	LAS		Wyoming
Webb, Donald Frederick	Agr		Chicago
Webb, Jasper Kent	Agr	120	Neota
Webber, Albert G. A.B., 1914	L		Decatur
Webber, Harry Edwin	AE (SS)	118	Chicago
Webber, Helen Waller	LAS	97	Urbana
Webber, Robert Alfred	ChE		Urbana
Weber, Gertrude T.	LAS	81	Olney
Weber, Helen	HSLAS		Olney
Weber, Leonard Fred	EE		Buckley
Webster, David Cox	Bus		Wilmette
Webster, Frances	LAS		Shawmut, Montana
Webster, Gladis Gilbert	Agr	28	Washington, Indiana
Webster, Lewis Selwyn	MSE		Bartow, Florida
Wedding, Mrs. Rose M.	SS		Jerseyville
Wedge, Leslie B.	Bus		Kewanee
Weems, Charles Lee	LAS	16	Quincy
Weenink, Ruth Antoinette	HSAgr	32	Dillon, Montana

Weeter, Harry Montgomery	SS	5	Fredell, Pennsylvania
Wehrle, Frank Ignatius	Agr	31	Carmi
Weihe, Wesley Hugeloy	Mus		Nashville
Weil, Ruth Carmen	LAS	35	Oelwein, Iowa
Wellepp, Eva Sarah	HSLAS (SS)	102	Decatur
Wellepp, Laura Elizabeth	HSLAS		Decatur
Weiler, Edward Grove	EE	117	West Salem, Ohio
Weinberg, Elizabeth	HSAgr	31	Rushville
Weinberg, Flora Jane	HSAgr	87	Rushville
Weingartner, Clyde Frederick	AE (SS)	111	Rockford
Weinschenker, Reuben Edward	ME	38	Chicago
Weir, Amy Azales	HSLAS		Marshall
Weir, Pearl	HSLAS		Marshall
Weisiger, George Bates, LL.B., 1911	SS		Catlin
Weisman, Clarence Schott	SS		Keokuk, Iowa
Weiss, Della	LAS	31	Chicago
Weiss, Marion Virginia	LAS	45	Champaign
Weiss, Nicholas George	Agr		Chicago
Welch, John Maurice	ChE (SS)	118	La Salle
Wells, Fred Sheaff	ME (SS)	100½	Aurora
Wells, Harry Andrew	Agr	28	Dalton, Pennsylvania
Welsh, Kathryn Clare	LAS sp	27	Bradford
Welsh, Marjorie Cecilia	HSLAS	99	Bradford
Welsh, Roger Thomas	Agr	101	Rockford
Welty, David Charles	Agr	32	Amboy
Welty, Duncan Oliphant	Agr		Chicago
Wessels, Marie	Med		Quincy
Wessels, Vera Gretchen	LAS (SS)	100	Quincy
Westbay, James Hieron	RME		Monett, Missouri
Westbrook, Harold William	Bus		Centralia
Westenhaver, Le Roy John	MnE		Chicago
Westerman, Rodolpho G	MSE		Curtys, Brazil
Westlund, Emil Hjalmer	Bus	61	Chicago
Westman, Adolph Fred	EE		Winona, Minnesota
Weston, Jessie Beatrice, Ph.B. (Univ. of Chicago) 1907	Lb		Urbana
Wham, Benjamin	LAS & L		Cartter
Wheeler, Bryant Long	Agr	31½	Carrollton
Wheeler, Hiram Hannibal	Agr sp		Champaign
Wheeler, Parker M	ME	47	Champaign
Wheeler, Russell Claire	ME (SS)	113	Champaign
Wheeler, William Erastus	L	28	E. St. Louis
Wheelhouse, Elizabeth Lux	HSLAS		Decatur
Wheelhouse, Mary Elizabeth	LAS	65	Decatur
Wheelock, Earle Nathaniel	Agr		Wilmette
Wheelock, Loyal Bergen	AE	44	Chicago
Whipple, Helen Katherine	LAS	67	Medina, New York
Whitacre, Elson Harmon	AE		Chicago
Whitacre, Raymond Charles	A	136	Davenport, Iowa
Whitchurch, Helen Margaret	HSAgr	65	Salem
White, Agnes Chloe	HSLAS	32	Marion
White, Alice Pauline	HSAgr	14	Vestaburg, Michigan
White, Beauchamp A	LAS		Chicago
White, Catharine Nell	Mus		Urbana
White, Frank Herbert	EE	79	Chicago
White, George Richard	AE	73	Buffalo, New York
White, Harold Hartwell	Bus		Chicago
White, Leslie Aldoris	Agr	28	Chicago
White, Lyde Evangeline	Bus	42½	Urbana
White, Marion Kingley	HSAgr	32	St. Joseph, Missouri
White, Pauline, A. B. (Earlham Coll.) 1912	Mus		Amo, Indiana
White, Phares Lemar	RME	56	Oxford, Indiana
White, Russell Sherman	Bus		Chicago
White, Tell Thompson	SS	64	Pocahontas, Arkansas
White, Thomas Kenneth	EE	110	Champaign
Whitehead, Paul	LAS	21	Vienna
Whitelaw, Arthur Keith, Jr.	Med	5	Wood River
Whitelaw, James Chalmers Cameron	CerE	111	Glencoe
Whiting, Vivian Justina	HSLAS	33	Urbana
Whitley, Guyon Carl	Bus	66	Webster City, Iowa
Whitley, Ralph Schureman	Cer	30	Chicago
Whitman, George Brington	Agr		Cameron
Whitmire, Clarence Leonard	Med (SS)	31½	Waverly, Iowa
Whitnel, Joe	L	28	E. St. Louis
Whitney, Joseph Lafeton	Bus	29	Oak Park
Whitney, Leonard Hilliard	MnE	37	Downers Grove
Whitson, Herman Ansel	LAS		Rushville
Whittemore, Kenneth Stoddard	Bus	16	E. Aurora, New York
Whitver, Howard Clifford	Bus		Walnut
Whitten, Jennie Alma	SS	7	De Kalb
Wickard, Hortense Elaine	LAS (SS)	97	Garland City, Arkansas

Wiedemann, David, Jr.	Bus	47½	Harvey
Wiedemann, Newell Everett	A		Equality
Wiedling, Clarence Clinton	EE	101	Chicago
Wiese, Alvin Otto	LAS		Chicago
Wight, Edith Marian	LAS		Chicago
Wiles, Bertha Harris	LAS	9	Kansas City, Missouri
Wiley, Harry Houghes	CE	33	Sioux City, Iowa
Wiley, Robert Ernest	ME	75	Warren
Wiley, Sarah Jana	HSAgr	53	Colfax
Wilkins, Albert F	LAS		Cartter
Wilkins, Charles Milton	LAS	16	Griggsville
Wilkins, Ernest Jesse	LAS		Farmington, Missouri
Wilkins, Stanley Charles	Agr	36½	Chicago
Wilkinson, Elon Gilbert	Bus	120	Geneseo
Wilkinson, Jackson Heath	CE	105½	Bethany
Wilkinson, Wardell	Bus		Chicago
Will, William George	CE	44	Fairview
Wille, Laura May	HSLAS (SS)	92	Enid, Oklahoma
Williey, Gilbert Stewart	Agr		Warren, Minnesota
Williams, Beulah Naomi	LAS		Hume
Williams, Chester Albert	A	36	Sterling
Williams, Fenton Hamilton	LAS (SS)	61	Watseka
Williams, Floyd Earl	ME	29	Rockford
Williams, Fred Ray	Agr sp	15	Cloverdale, Indiana
Williams, George Alfred	LAS		Peoria
Williams, Helen Jackson	Bus	35	Streator
Williams, Irene	HSAgr		Ravanna, Missouri
Williams, John Milton	LAS		Dixon
Williams, Leslie Albert	Agr		Ava
Williams, Lewis Ward	SS	8	Newton Falls, Ohio
Williams, Margaret Stuart, A. B. (Univ. Texas) 1912	Lb (SS)	41	Hamilton, Texas
Williams, Mary Catherine	LAS		Woodland
Williams, Oswald Howell	A		Granite City
Williams, Robert Tatman	LAS		Quincy
Williams, Walter H	ChE		Ritchie
Williford, Edward Allan	EE	108	E. St. Louis
Willis, Reba	SS	5½	Mt. Carmel
Willmarth, Clarence Alfred	AE	36	Atlanta, Georgia
Wills, Mary Etta	LAS (SS)	80	Watska
Willson, Harold Edwin	MnE (SS)	49	Baltimore, Maryland
Willson, Jennie Fae	LAS	56	Nokomis
Wilson, Alfred David	Agr	66	McNabb
Wilson, Allen Center	CE	30	La Grange
Wilson, Ashbel Ray	ME	68	Hutsonville
Wilson, Clarence Leon	Med		Carbondale
Wilson, Donald Eugene	ChE		Rossville
Wilson, Grover C	EE	36	Walnut
Wilson, Helen May	LAS	70	Chicago
Wilson, Isabella Chilton	LAS (SS)	60½	Arbuckle, West Virginia
Wilson, Kenneth Leon	SS	7	Atwood
Wilson, Leo	Med		Champaign
Wilson, Lyle Avery	A		Hamburg
Wilson, Ralph Oliver	Agr		McNabb
Wilson, Ray Walker	Bus		Princeton, Missouri
Wilson, Walter LeRoy	LAS		Alton
Wilson, Willard Oliver	Bus	32	Wilmot, Mississippi
Wilson, Williams Webb	Agr	108	Brownstown
Wilson, Winifred	LAS	7	Atwood
Winans, Harold George	EE	16½	Aurora
Wing, Orion N	LAS (SS)	85	Capron
Winkleman, Ralph Randolph	Med		Bellerville
Winklemann, Roland Earl	LAS	4	Bellerville
Winkler, Ross Wayne	Agr		Newman
Winn, George Pickrell	EE	10	Kansas City, Missouri
Winokur, Morris Charles	RCE	75	Chicago
Winship, Mary Alameda	HSLAS		Tiskilwa
Winter, Elijah	Agr	24	Annawan
Winters, Charles Prior	Bus	99	Chicago
Winters, Harrison	A		Milwaukee, Wisconsin
Winters, Lawrence Morse	Bus		Chicago
Wirth, Walter Valentine	ChE	34	Mt. Carmel
Wise, Clark Edward	Agr	31	Champaign
Wisegarver, Carter Campbell	Agr		De Land
Wisegarver, Elizabeth Pauline	HSLAS	30	De Land
Wischart, Eugene Lawrence	Agr	15	Indianapolis, Indiana
With, George Orlando	MSE	107½	Joliet
Witherspoon, Clyde Findley	Agr		Champaign
Witty, George Edwin	Agr sp		Pleasant Plains
Woelbeling, William Kenneth	EE (SS)	77	Chicago
Woerman, Lillian Homens	HSAgr		St. Louis, Missouri
Wold, Ingal Eusor	Agr	70½	Dixon
Wolf, Antonette Catherine	LAS	18	La Salle

Wolfe, Viola Esther	LAS (SS)	101	Urbana
Wolff, Aline Jeanette	HSLAS		Urbana
Wolgaat, Leota Alice	LAS		Danforth
Wolter, Herbert	Agr		Danville
Wolter, Mitchell	LAS (SS)	70	Moline
Woltmann, Louis William	Bus	34	Nokomis
Womacks, Mabel Clara	LAS	106	Champaign
Wong, Te Chang	SS	8	Soochow, China
Wong, Yick Keun	Agr (SS)	51	San Francisco, California
Woo, Yin	Bus	30	Swatow, Kwang Tung, China
Wood, Adeline	HSAgr	64	Sullivan
Wood, Bonny Blossom	SS		Mitchell, Indiana
Wood, Charles Clifford	CE		Jacksonville
Wood, Harry Thomas	LAS	5	Hennepin
Wood, Lawrence Anselm	SS	84	Mitchell, Indiana
Woodard, Roma Lillian	HSAgr		Sidney
Woodburn, Chester C	A		Boone, Iowa
Woodrooffe, Louise Marie	LAS	46	Champaign
Woodward, Edwin Mortimer	SS	75	Odin
Woods, Andrew Chevalier, Jr.	ME	36	Chicago
Woods, Frances Octand	LAS	11	St. Louis, Missouri
Woods, Lenna Beryl	LAS		Champaign
Woods, Ralf Charles	Agr	33	Evanston
Woods, Ray James	Bus	33	Evanston
Woodward, Groff Lawrence	L		Decatur
Woodyatt, Harold	Bus	294	Dixon
Woolbert, Charles Henry	LAS		Urbana
Woolf, Henry Solomon	Agr	93	E. London, South Africa
Woolman, Rachel Margarett	HSAgr	68	Urbana
Woolman, Richardine	LAS	71	Hot Springs, Arkansas
Worcester, Lenora Mary	HSLAS	96	Genoa
Worcester, Richard Ladd	Bus		Roodhouse
Worner, Henry Harold	Agr		San Jose
Worthington, Robert, Jr.	Med	37	Petersburg
Wray, Charles William	Agr	67	Rockford
Wrede, Bertram Alfred	CE	26	Chicago
Wright, Agnes	LAS	63	Charles City, Iowa
Wright, Bertha Belle	SS		Champaign
Wright, Donald Townsend	ChE		Chicago
Wright, Douglas, Jr.	Agr	85	Decatur
Wright, Edward Paul	CE	73	Brocton
Wright, Emma	HSAgr	33	McLean
Wright, Francis Marion	ME		Urbana
Wright, Josef Franklin	Bus	57	Beaumont, Texas
Wright, Joseph Franklin	LAS		Champaign
Wright, Newton Anthony	Agr	1134	Shelbyville
Wright, William Edison	Med		Gifford
Wrisley, George Alfred	ChE	74	Chicago
Wu, Wei Yoh	LAS	644	Hinaan, China
Wuerker, Adolph Kirsch	Bus		Alton
Wycoff, Benjamin Harrison	Agr	13674	Laura
Wykle, Ethel Marie	HSAgr	83	Mahomet
Wyland, Ray Orion	LAS (SS)	914	Ringwood, Oklahoma
Wyman, Wallace	A	127	Mansfield
Yacger, Hazel Marie	SS	54	Litchfield
Yale, Gertrude Emily	LAS		La Grange
Yamamoto, Soichi	EE	76	Honolulu, Hawaii
Yang, Tsao Shing	EE (SS)	424	Sinkua, Hunan, China
Yapp, James Fook Onn	CE (SS)	109	Honolulu, Hawaii
Yeager, Leland Edward	CerE		Maywood
Yee, Gan Chyo	ChE (SS)	374	Shangning, Hunan, China
Yerkes, Charles Wrenn	SS	7	Moweaqua
Yerington, John George	Agr		Waterliet, Michigan
Yim, Albert Mun	CerE	5	Honolulu, T. H.
Yindrock, Leo Edwin	MnE		Chicago
Yoch, Florence Teresa	Agr	98	Santa Ana, California
Yockey, Merle Albert	Bus		Beardstown
Young, Adlai C	REE		Menomonie, Wisconsin
Young, Arthur Tatarian	Bus	35	Chicago
Young, Ruth Elizabeth	LAS	94	Casey
Younglove, Clyde Charles	AE	143	Sioux City, Iowa
Yu, Hsi-Chi	Bus	18	Anhui, China
Zahn, Fred Raymond	MSE	1324	Belle River
Zaleskie, John Paul	Agr	26	Louisa, Russia
Zelle, Carl Alfred	Ch	71	Lake Fork
Zeller, Laurence	Bus		Brazil, Indiana
Zeter, Harry Moyer	Agr	994	Lincoln
Zieman, William Walter	ChE	105	Chicago
Zieroth, Edward Henry	Agr		Chicago
Ziese, Fred	SS	2	Sullivan
Zimmermann, Anthony Urban	ME	114	Peoria

Zimmermann, Arthur Charles
Zinser, Robert Bruce
Zipf, Oscar Robert, Jr.
Zipprodt, Roy Richard
Zollinger, James Edward

<i>AE (SS)</i>	94	<i>Peru</i>
<i>Bus</i>	52	<i>Washington</i>
<i>Ag</i>	61	<i>Freeport</i>
<i>AE</i>	112	<i>Urbana</i>
<i>EE</i>	109	<i>Alliance, Nebraska</i>

COLLEGE OF MEDICINE

Name	Year	Residence
Ackerman, Joseph William	2	Chicago
Adams, Gordon Charles	3	Newton Center, Massachusetts
Adams, Mabel India	sp	Fontanelle, Iowa
Alden, Samuel Jacob	4	Goodlettsville, Tennessee
Alder, Clay, Ph.C.	4	Athol, Kansas
Anderson, Karl A	4	Kent City, Michigan
Anderson, Richard Elseph	1	Lynn Center
Anderson, Stewart Harry	3	Wells, Minnesota
Appelle, Conrad George	3	Mt. Carroll
Arakelian, Senekerim Hovhannes, A. B.	4	Turkey
Armstrong, Clifford Oakley	1	Bloomington
Armstrong, Victor Scott	2	Chicago
Asuzano, Marcelino	4	Manila, Philippine Islands
Baker, William Asa	2	Richmond, Maine
Barickman, Robert Irving	3	Lewisville, Minnesota
Barnett, Alexander Herbert	4	Chicago
Barnett, Edwin Judge	3	Peoria
Beatty, Ernest Gaston	4	Jerseyville
Beatty, Hannah Jane	3	Lake View, Ohio
Benjamin, Harry Webb	2	Chillicothe
Bennett, John Francis	3	Waterford, Wisconsin
Berge, Maurice Aurelius	2	Ransom
Bergin, Clifford Edward	3	Chicago
Bernstein, Alick	3	Chicago
Betts, Arthur	4	Mitchell, South Dakota
Bivings, Franklin Carlisle	3	Atlanta, Georgia
Blim, Warren Caldwell	3	Crete
Blodgett, Pliny Russell	3	Harvard
Boddiger, Charles Edwin, Ph.G., M. D.	sp	Chicago
Bolka, Bernard Joseph	3	Michigan City, Indiana
Bowden, John Miles, Ph.C.	2	Brunswick, Georgia
Bowell, Roy Melson	3	Rolling Prairie, Indiana
Brodsky, Lewis Leonard	4	Chicago
Brosnan, John Thomas	3	Chicago
Broudo, Philip Harmon	4	Toronto, Ontario
Brown, Dean Cassius	4	Minneapolis, Minnesota
Brown, Lyle Leland	1	Crookston, Minnesota
Browne, Lewis Edwin Joel	3	Lewistown, Missouri
Brucker, Edward Arthur	3	Fond du Lac, Wisconsin
Burling, Wesley Morgan	3	Muskegon, Michigan
Burlingame, Clarence Charles, M D.	4	Rockford
Byrnes, William Armstrong	2	Minneapolis, Minnesota
Capron, Manley Joseph	3	Waldron, Colorado
Carothers, Herbert Chapman	2	Chicago
Carr, Earl Curtis	4	Maquoketa, Iowa
Carroll, William Franklin	3	Hannibal, Missouri
Carstensen, Albert Brockway	3	Waverly, Iowa
Casey, Emmet Francis	3	Chicago
Cienciara, Felicia Helen	4	Chicago
Clark, Alger Arthur	3	Chicago
Claypool, Blaine Wilson	3	Chicago
Cobb Horace R	3	Kalamazoo, Michigan
Cody, Michael Milton	3	Chicago
Cohler, Lazarus	4	Chicago
Conway, John M	4	Elroy, Wisconsin
Cooper, Ward	3	Parsons, Kansas
Corpus, Telfo Pedro	4	Aliaga, Philippine Islands
Cotton, Schuyler Opp	3	Vermilion, South Dakota
Cross, Aubrey James	3	Aberdeen, Washington
Curl, Howard E., A.B.	3	Chicago
Cushman, Agnes Beulah	3	Bethany, Missouri
Cutler, Irwin Herbert	4	Chicago
Cutting, Lloyd David	3	Stevens Point, Wisconsin
Dailey, George Leslie	4	Almena, Kansas
Dame, Louis	2	Chicago
Doktorsky, Maurice	2	Chicago
Doughty, James William	4	Elroy, Wisconsin
Dyer, William Holmes	3	Chicago
Dysart, Benjamin Quincy	1	Granville
Earel, Fred Elwell	3	Abingdon
Eck, Charles Patt, Ph.G.	3	Chicago
Edwards, Walter Raymond	3	Ward, Iowa

Eisenberg, Dave	3	Minneapolis, Minnesota
Elston, Lynn Wickwire	3	Angola, Indiana
Elvidge, Ross Edmund	4	Rockford
Evans, Arthur Morgan	3	Chicago
Eye, Boyd Franklin, Jr.	3	Talmage, Kansas
Far, Shakir Elias	3	Palestine, Turkey
Farbiszewski, Amelia	2	Chicago
Fenchel, Louis Samuel	2	Chicago
Fink, Marion Shelley	3	Chicago
Finsand, Victor	3	Aberdeen, South Dakota
Fitzgerald, George Michael	4	Fond du Lac, Wisconsin
Fordyce, Alexander William	3	Gilman
Formosa, Anthony Carlo	4	Chicago
Fortelka, Frank Louis	2	Chicago
Fournadjieff, Dimitre George	4	Chicago
Franchere, Chetwynd Mair	4	Chicago
Francisco, Sixto Acosta	2	Batangas, Philippine Islands
Frederickson, Sophie Henrietta	3	Chicago
Freilich, Harry Hirsch	4	Chicago
Frise, Dudley Cureton, Ph. B.	4	Minneapolis, Minnesota
Gates, Leo Vincent	2	Elgin, Minnesota
Gilchrist, Virgil Martha, B.S.	2	Moscow, Idaho
Gochnaur, Orlando Merrill	4	Freeport
Gilmore, Russel Adams	2	Michigan City, Indiana
Glover, Harold Mortimer	3	Newton, Kansas
Goggin, John Gervase	3	Rochester, Minnesota
Goldberg, Benjamin	3	Chicago
Golden, Waldo Emerson	2	Champaign
Gordon, George	4	Chicago
Gordon, James Kenneth	2	Sparta
Gottschalk, Clara Grace	4	Chicago
Goy, Michael	4	Chicago
Graham, Reuben Waddell	4	Gallipolis, Ohio
Greenwald, Saul Charles	4	Chicago
Grissom, Calton Barney	2	Syracuse, Kansas
Hahn, Frederick	4	Omaha, Nebraska
Hakansson, Eric Gosta	4	Chicago
Hartwell, Basil Orman	2	Maysville, Missouri
Hartwig, Gerhard Frederick	4	St. Ansgar, Iowa
Hasek, Victor Hugo	3	Cedar Rapids, Iowa
Hawthorne, Grace Maude	3	Nevada, Iowa
Herpe, Gustav Goodman	4	Chicago
Hildebrand, Gustav John	2	Sheboygan, Wisconsin
Hoagland, Arthur William	4	Minneapolis, Minnesota
Hoff, Einar	4	Chicago
Hoffman, Goldie	4	Chicago
Hollender, Abraham	4	Chicago
Hollmers, William David	4	Chicago
Hommell, Placido Ramos Vasquez	3	Chicago
Hubbell, Joseph Albert	2	Neillsville, Wisconsin
Huber, Paul Robert, Ph.G.	2	St. Cloud, Minnesota
Hughart, Harold Hershall	2	Chicago
Hunt, Gerald Charles	3	Pocatello, Idaho
Ignatius, Arshavie	3	Des Moines, Iowa
Israelson, William	3	Armenia
Iverson, Louis	2	Chicago
Jacobson, Clarence August	3	Badger, Minnesota
Jacobson, Leo Jacob	3	Chicago
Jaffe, Joseph	3	Chicago
Jaracz, Walter John	3	Chicago
Jeffrey, Charles Wykoff	4	Osceola, Nebraska
Jeffrey, James Robinson, Jr.	2	Nortonville, Kansas
Jeffries, Daniel William	3	Marietta
Jelliffe, Martin Bushnell	2	Mansfield, Ohio
Johnson, Walter Lawrence	3	Falls City, Nebraska
Jones, Alfred Edward	4	Chicago
Kadish, Benjamin	2	Chicago
Kahn, Meyer	4	Chicago
Katz, Harry	3	Chicago
Kennedy, Josephine, A. B.	2	Wheaton
King, Elbert Rife	4	Pueblo, Colorado
King, Ralph	3	Olney
Kleger, Samuel Arthur	4	Battle Creek, Michigan
Klein, Robert Gotfred	4	Montrose, Colorado
Kline, Ralph Glenn	2	La Porte City, Iowa
Knight, Leaf Cort	4	Sioux Falls, South Dakota
Koch, Herman Carl	3	Harvard
Koptik, George	1	Chicago
Kulasavicz, Bernard J	3	Bessemer, Michigan
Kutzenberger, Helen Pearl	3	Jerseyville
Kwauk, Zang Yien, B.S.	4	Canton, China
Lambert, Harry Furniss	4	Cedar Falls, Iowa
Lampert, Max	3	Forest Park

Landau, George Milton	4	Chicago
Langdon, Floyd Burdick	4	Chicago
Langlois, Harvey Louis, A.B.	2	Kankakee
Larkin, Cyril James	4	Chicago
Lefkoff, Theresa Glustoff	2	Chicago
Leibinger, Henry Robert	3	Chicago
Leiserwitz, Samuel Brody	2	Herscher
Lin, Hie-Ding	4	Foochow City, China
Lipp, George Robert	3	Brandon, Wisconsin
Lipschultz, Jacob	3	Chicago
Lungmus, Bruno	3	Chicago
Lutz, Carl William	4	Ottawa
Lyman, Horace Chauncey	4	Graceville, Minnesota
Madsen, George Walter	2	Chicago
Mandanias, Aniceto Y	3	Banan, Philippine Islands
Marchan, Juan Sixto	3	Barceloneta, Porto Rico
Mars, Hartley Farnham, Ph.C.	2	St. Paul Park, Minnesota
Martin, Leon Wade, Ph.C.	2	Plainwell, Michigan
Masslow, Eleanor Sophia	4	Forest Park
Matthews, Cora Arminta	3	Champaign
May, Edwin Ralph	2	Clinton
Mayers, Lawrence Hampson, A.B.	4	Millersberg, Ohio
Meggers, Edward Charles	2	Walker, Iowa
Mix, Walter Spaulding	4	Beardstown
Moffett, Reuben Alvord	3	Wenona
Morse, Morton Patrick	4	LeRoy, Minnesota
Mulholland, William James	3	Chicago
Murphy, Thomas Burton	1	Oakesdale, Washington
McCaffrey, Eugene Henry	4	Maquoketa, Iowa
McCaffrey, Phillip John	2	Chicago
McClanahan, Benjamin Vaughn	4	Galesburg
McCornack, Robert Lee	4	Chicago
McCoy, Henry James	2	Amboy
McGuire, Mary Ruth	3	Holstein, Iowa
McRae, Maury Holcombe	3	Corinth, Mississippi
Nakaya, Fusa	3	Kyoto, Japan
Nigro, Rocco	3	Chicago
Norton, Harry Sims	3	Pontiac
Norwood, Lincoln Harrison	2	Bluejacket, Oklahoma
Ofner, Lester Irving	4	Chicago
Ogden, Claude Harris	4	Cedarville, New Jersey
Olson, Clarence Willard	2	Escanaba, Michigan
Orcutt, Arthur Henry, A.B., B.S.	1	Arcola
Pacak, Frances	4	Chicago
Paskind, Jacob	3	Chicago
Peterson, Edwin	4	Rockford
Peterson, Harry Michael	3	Chicago
Peterson, Ralph Waldo	3	Chicago
Piaseczynski, Francis	1	Chicago
Pilot, Isadore	3	Chicago
Pinkerton, Charles Clifford	4	Pawnee City, Nebraska
Pino, Ralph Harrison	3	Ithaca, Michigan
Piro, Victor	3	Cle Elum, Washington
Preston, William Booker	3	Salt Lake City, Utah
Radabaugh, Rudolph Charles	2	Zumbro Falls, Minnesota
Radeff, Ivan Nicholas	1	Chicago
Raim, William	3	Chicago
Raman, Henry Benjamin	3	Farmingdale
Reich, Sigmund	2	Chicago
Reinhardt, Charles Henry	4	Chicago
Rock, John Lestrangle, B.S., A.B.	3	Lexington, Oklahoma
Roth, Jesse Henry, A.B., M.S.	4	Chicago
Roushausen, Clara	1	Oak Park
Rowland, Samuel Joy	3	Sunnyside, Washington
Royster, Hallace Rector	2	Argo
Saha, Pramathanath	4	Calcutta, Indiana
Salpas, Spero	2	Chicago
Sanders, George Edward	2	Champaign
Sandroek, George Paul	3	Watertown, Wisconsin
Sathe, Marcus Roy	4	Jackson, Minnesota
Sauer, Francis Joseph	2	Chicago
Schick, Frank Joseph	4	Chicago
Schiele, Richard Frederick	4	Joliet
Schiff, Nathan Samuel	3	New York City
Seilin, Joseph	4	Chicago
Sered, Harry	2	Milwaukee, Wisconsin
Sexsmith, Edna Kathryn, B.A.	1	Greenfield, Iowa
Seletz, Abraham	3	Chicago
Senelick, Marius David	4	Chicago
Senescall, Cleve Ridlon	4	Ortonville, Minnesota
Severson, James Melvin	3	Deerfield, Wisconsin
Sharp, Jeremy Joseph	4	Mill Creek, Indiana
Shaw, Edith Marion	2	Peru, Nebraska

Shell, Arthur Edwin	4	Clinton
Short, Roy Davis	3	Whitehall
Siewerth, Walter Scott	4	Chicago
Silverstein, Willis Irving	3	Chicago
Sladek, Edward Frank	1	Chicago
Small, James Craig, B.S.	2	Chambersburg, Pennsylvania
Smart, Clarence Earl	4	New Lisbon, Wisconsin
Smith, Dean Stanley	4	River Falls, Wisconsin
Smith, Lloyd Emerson	3	Marietta
Spiering, Arthur Kern	3	Fond du Lac, Wisconsin
Staib, Henry Albert	4	Bartlett
Stein, William Frederick	4	Cisne
Stern, Jacob	3	Chicago
Stern, Louis Henry	3	Chicago
Stern, Simon	4	Chicago
Stevenson, James	2	Chicago
Stolfa, Ladislav	3	Chicago
Stuart, Christopher Brown	4	Springfield
Sullivan, Thomas John, Jr.	4	Chicago
Sutch, Armand Kredel	2	Chicago
Sutherland, Jacob Marion	4	McKinney, Texas
Swinehart, Bertram Oliver	2	Cooksville
Sykes, Newman Marion, B.S.	2	Decatur, Alabama
Syversen, Bion Claude	4	Westby, Wisconsin
Szwajkart, Adam Leo	2	Chicago
Talbot, Edwin Robert	4	Joliet
Taub, Samuel Jack	3	Chicago
Thiell, James Edward	4	Fond du Lac, Wisconsin
Tiedeman, Ian Davis	3	De Soto, Wisconsin
Timm, Harry Emil Louis	4	Crown Point, Indiana
Tomlin, Russell	3	Easton
Tomsu, Charley Lewis	3	Renfrow, Oklahoma
Toothaker, Joel Edwin	3	Sandoval
Vander Kloot, Albert	4	Chicago
Vartanian, Mandiros Bekrow	3	Harpoat, Turkey
Varzhahedian, Mihrain A., B.A.	4	Erbaa, Turkey
Volberding, Harry Henry	4	Bensonville
Wagoner, Amanda Irene	4	Delphi, Indiana
Wallingsford, William Jewell	4	Chicago
Wayland, Thomas Alfred	4	Macomb
Wedge, Athol Horatio	3	Waukun, Wisconsin
Weightman, Marian A	4	Carpentersville
Welch, Roland Aretus	4	Battle Creek, Michigan
Welden, Ned Amos	2	Weaton
Wiese, Walter Fred	4	Milwaukee, Wisconsin
Willander, Alfred Arthur	4	Winthrop, Minnesota
Williams, Mary Edith, A.M.	2	Evanston
Wilson, Harry Hults	3	Marshalltown, Iowa
Wilson, Marcus Bryed	3	Huron, South Dakota
Wojniak, Frank	2	Chicago
Wolf, Paul Jacob	3	Chicago
Woolley, Walter Anthony	4	Lancashire, England

COLLEGE OF DENTISTRY

Name	Year	Residence
Albers, William	1	Chilton, Wisconsin
Anderman, Sanford	2	Chicago
Anderson, Martin Rudolph	1	Lynn Center
Baird, William Glen	1	Portland, Oregon
Baumstein, Michael	3	Chicago
Berman, Harold H	2	Chicago
Bernstein, Nathan M	2	Chicago
Biehler, Rudolph Waldemar, M.D.	3	Freiburg, Germany
Blaine, Luther L	2	Douglas, Wyoming
Blair, Maurice I	2	Chicago
Bonney, Thomas Chew	2	Aberdeen, South Dakota
Brogmus, Ernest J P	3	Chicago
Bortz, Louis William	3	La Porte, Indiana
Bostik, Edward Joseph	2	Belleville, Kansas
Coltman, Harry Dean	2	Chicago
Condit, Harold S	2	Chicago
Cusick, William Arthur, Jr.	2	Chicago Heights
Deist, Miltzor William	3	Harper, Kansas
Dierks, George W	3	Toledo, Ohio
Dixon, Robert Jesse	2	Elroy, Wisconsin
Dolson, John Lewis	1	Charlotte, Michigan
Epstein, Alex	1	Chicago
Fields, George William	1	Gibson City
Felcher, George L	3	Chicago
Fonda, James Everett	3	North Platte, Nebraska

Franzwa, Charles Francis	1	Mondovi, Wisconsin
Frazer, J. Ruple	2	Bessemer, Michigan
Fullerton, Richard Maxwell	3	Ann Arbor, Michigan
Gallie, Donald Muirhead	3	Wilmette
Goodfriend, Samuel H	3	Chicago
Hansen, Harold O	3	Chicago
Harnick, Harry	2	Chicago
Houth, John Francis	3	Chicago
Humphrey, Robert I	2	Chicago
Hussey, Frank A	3	Minneapolis, Minnesota
Ihde, Dean Elbert	1	Waupun, Wisconsin
Ihle, Chester	2	Newfolden, Minnesota
Irimajiri, Naoshige	sp	Tokio, Japan
Jarrett, Frank Alfred	1	Chicago
Jaros, Joseph Edward	1	Chicago
Jelen, Vladimir	2	Chicago
Jesser, Jacob	2	Chicago
Johnson, Ernest G	2	Hawley, Minnesota
Koch, Lawrence M	2	La Porte, Indiana
Kohn, Morris	2	Chicago
Kousnetz, Louis B	2	Chicago
Krejci, Edward J	3	La Porte, Indiana
Kubacki, Wacław H	1	Chicago
Kuzow, Louis	1	Chicago
Lee, Carl Sigwart	1	Mondovi, Wisconsin
Lincoln, Robert Grant	2	Union Grove, Wisconsin
Litscher, A Arthur	2	Fox Lake, Wisconsin
Loewenthal, Louis C	2	Chicago
Martin, Carl David	3	Chicago
Mershimer, James Dwight	1	Chicago
McCornell, Charles	2	Gibson City
Nemecsek, Charles Anton	1	Chicago
Ohta, Letsuo	sp	Tokio, Japan
Orloff, Louis	2	Chicago
Ostrowski, Theodore Charles	1	Chicago
Person, Allgot Gustaf	2	Chicago
Playman, Harold Lemoyne	2	Stevens Point, Wisconsin
Reckard, Harry Jefferson	1	Chicago
Reiseman, Henry	2	Chicago
Richter, Camilla	2	Chicago
Rubin, Edward Allen	1	Chicago
Saubert, Arthur F	2	South Kaukauna, Wisconsin
Schlüssel, Noah W	2	Detroit, Michigan
Schroeder, Walter H	3	Chicago
Shalek, Victor James	1	Chicago
Sherman, Robert Issodore	1	Chicago
Smith, Pepper Wheeler	2	Fort Totten, North Dakota
Smith, Barnett O	2	Carrollton, Missouri
Sommerfield, Nate	3	Chicago
Steinberg, Abel David	3	Chicago
Tark, Leo A	2	Chicago
Upp, Roscoe Winters	2	Havana
Welch, Harold William	2	Chicago
Werninghaus, William Ernest	3	Melrose Park
White, Leslie George	1	Golden
White, Leland J	3	Chicago
Williams, J Augustus	1	Chicago
Winsberg, Harry	1	Chicago
Wood, Max T	2	Charlotte, Michigan

SCHOOL OF PHARMACY

Name	Course*	Residence
Albright, Mahlon Franklin	P 1	Auburn, Indiana
Allen, James Henry, Jr.	P sp	Griggsville
Allen, Monte	P 2	Grayslake
Allman, Kenneth Frederick	P 2	Rensselaer, Indiana
Anderson, Le Roy Eugene	P sp	Moline
Anderson, Richard Joel	P 2	Chicago
Andrzejczyk, Vincent	P 1	Chicago
Aron, Fannie Lillian	P 2	Chicago
Ayers, Leo	P sp	Chicago
Baker, Sam Leon	P 2	Gary, Indiana
Bakkers, Arthur	P 1	Chicago
Bakkers, Neff Kuyper	P 1	Chicago
Baldwin, Edgar	P 1	Genoa
Barone, Christopher	P 2	Chicago
Beckman, William	P 1	Chatsworth

*Abbreviations: P, Pharmacy; PC, Pharmaceutical Chemistry; 1, first year; 2, second year; sp, special.

Bianco, Mike Robert	P 2	DuQuoin
Black, Waldo Knox	P 1	Chicago
Bloom, Irwin	P 1	Chicago
Boehm, Frederick Evenson	P 2	Neenah, Wisconsin
Bogard, Asher Holland	P 1	Olney
Borucki, Edward Anthony Felix	P 2	Chicago
Bradley, James Francis	P 1	Charleston
Brekke, Marshall Theodore	P 2	Rice Lake, Wisconsin
Brewer, Chester Wellington	P 2	Urbana
Brierton, Harold	P 1	Dixon
Brinkerhoff, Garry Russell	P 1	Chicago
Bronner, Paul	P 1	Chicago Heights
Bucke, William Stuhlmann	P 2	Chicago
Buckrucker, Walter	P 2	Chicago
Bundy, Carroll Edwin	PC 2	Sheldon
Chamness, Burrell, Ph.G. (St. Louis Coll. of Pharmacy) 1907	P sp	Marion
Claus, Robert	P 1	Chicago
Clay, Byron Eugene	P 2	Lena
Combacker, Marie Frances, A.B. (Carroll Coll.) 1913	PC 2	Elkworth, Wisconsin
Copeland, Thomas Bragg	P 1	Grand Junction, Colorado
Cortesi, Dante	P 1	Cairo, Egypt
Crisp, John Everett	P 1	Jonesboro
Crist, Raymond James	P 1	Chicago
Curlee, Raymond Anderson	P 1	Ashley
Datz, Charles Percival	P 2	Chicago
Davidson, Charles Elmer	P 1	St. Louis, Missouri
Davis, Guy Brooks	P 2	Abingdon
Davis, Ray Robbins	P 2	Abingdon
Denson, Ernest Nichols	P 1	Chicago
Dewey, Everett William	P 1	Lake Mills, Wisconsin
DeWitt Charles Roy	P sp	Pocatello, Idaho
Dj Cosola, Anthony	PC 1	Chicago
Diesner, Herbert Otto	P 1	Maywood
Drais, Grover	P 2	Onawa, Iowa
DuBroff, William	P 1	Chicago
Eberly, Harry Leo	P 2	Aurora
Ehrhardt, Clarence	P 1	Bellevue, Iowa
Erickson, Elmer	P 1	Chicago
Esmond, Wendell R	P 2	Maywood
Faulkner, Raymond Earl	P 2	Fulton
Feldsher, Anna Clair	P 1	Chicago
Fox, Milton Mitchell	P sp	Chicago
Fraser, Roy Fred	P 2	Elizabeth
French, Sidney Byington	P 2	Lake Geneva, Wisconsin
Friedl, William John	P 2	Chicago
Garrity, Vincent	P 1	Spring Valley
Gasen, Harry	P 1	Chicago
Geizpitz, Victor	P 2	Chicago
Glenn, Jacob F. LL.B. (Univ. of Iowa) 1901	P 2	Chicago
Goltermann, Richard William	P 2	Forest Park
Gordon, Samuel Michael	P sp	Chicago
Gorham, Louis Andrew	P 2	Chicago
Graham, Frank	P 1	Carlinville
Greenwood, Robert Lee	P 1	Chicago
Grund, Charles Hugo, Jr.	P sp	Chicago
Gustafson, Melsor Eugene	P sp	Chicago
Haffner, Louis Leo	P 2	Bloomington
Hamrak, Mike	P sp	Chicago
Hanichen, Carl William	P sp	Chicago
Hansen, Arthur Leon	P 2	Chicago
Havranek, Charles Joseph	P sp	Chicago
Harden, Leslie Eugene	P sp	Rockefeller
Harvey, Roy Ernest	P 1	Alma
Hawthorne, Ralph	P 2	Enfield
Hayward, Claude Henry	P sp	Chicago
Hojnacki, Sylvester Henry	P 2	Chicago
Holden, Edwin Cyrus	P 1	Chicago
Holmes, Bert Edward	P sp	Chicago
Huhn, William	P sp	Chicago
Imes, Ward Rupert	P 1	Chicago
Jacks, Alan Wallace	P 1	Ottawa
Jacobson, Michael	P 2	Chicago
Jaglowski, Anton Sylvester	P sp	Chicago
Jindrich, George William	P 2	Chicago
Johnson, Archie Kirkwood	P 2	Joliet
Johnson, Oscar William	P 2	Chicago
Jordon, Thomas Michael	P sp	Chicago
Kakacek, Joseph John	P 2	Chicago
Kanta, Harry	P 2	Chicago
Keefrey, Edward William	P sp	Chicago
Korschak, James	P sp	Chicago

Kozlowski, Roman Boleslaw	<i>P sp</i>	Chicago
Kostka, Walter John	<i>P 1</i>	Chicago
Kral, Edward Joseph	<i>P 2</i>	Chicago
Krebs, Rudolph	<i>P 2</i>	Milford
Krueger, Armin Charles	<i>P sp</i>	Pekin
Kvasnicka, Joseph Benjamin	<i>P 2</i>	Chicago
Larson, Clarence Oscar	<i>P sp</i>	Rock Island
Leckband, Theodore August Joseph	<i>P 2</i>	Grand Mound, Iowa
Lemieux, Eloi Henry	<i>P sp</i>	Chicago
Leo, Joseph Edward	<i>P 1</i>	Chicago
Lesko, Charles James	<i>P 2</i>	Chicago
Levinovitz, Leopold	<i>P sp</i>	Chicago
Lipschultz, Minnie Pauline	<i>P 1</i>	Chicago
Litson, Will Carleton	<i>P 1</i>	Romney, Indiana
Lisec, Otto	<i>P sp</i>	Chicago
Lowe, Charles Edward	<i>P sp</i>	Marion, Indiana
Malick, Hike Moses	<i>P 1</i>	Urumia, Persia
Malzewicz, Stephen Edwin	<i>P 2</i>	Chicago
Marr, Leo George	<i>P sp</i>	Kankakee
Marriott, Bates	<i>P 2</i>	Galesburg
Marsicano, Frank	<i>P 1</i>	Melrose Park
Marvel, Forest Elmer	<i>P 1</i>	Fullerton, Nebraska
Mawrence, Israei	<i>P 1</i>	Chicago
Masterson, Philip	<i>P 2</i>	Clinton, Iowa
Mazzei, Oratio	<i>P 1</i>	Chicago
McGurk, George Leo	<i>P sp</i>	Chicago
McKenty, Arthur Henry	<i>P 2</i>	Chicago
McPherson, Andrew William	<i>P sp</i>	Chicago
Metz, Harry	<i>P sp</i>	Chicago
Miller, Carl Theodore	<i>P 1</i>	Chicago
Miller, Thomas	<i>P 1</i>	Chicago
Miller, William N	<i>PC 2</i>	Waterloo, Iowa
Mitchell, James	<i>P sp</i>	Ursa
Mordente, Anthony Francis	<i>P 1</i>	Chicago
Mott, William Davis	<i>P 1</i>	Princeton, Kentucky
Mueller, Franklin Christopher	<i>P 2</i>	Jefferson, Wisconsin
Nelson, Hans Albin	<i>P 2</i>	Peoria
Nelson, James Cullent	<i>P 2</i>	Houston, Texas
Nemec, George Edward	<i>P sp</i>	Chicago
Nesbitt, Orlo Floyd	<i>P 1</i>	Quincy
Neville, Mark Eldon	<i>P 2</i>	Grayslake
Newberry, George Morris	<i>P 1</i>	Rock Island
Nichols, Hiram Vanderbilt	<i>P 1</i>	Chicago
Niemeyer, Frank Charles	<i>P 2</i>	Galena
Nyberg, Carl Walter	<i>P sp</i>	Clinton, Iowa
Obermiller, Oswald Edward Fred	<i>P 2</i>	Galena
Olson, George Ray	<i>P sp</i>	Chicago
Ortmann, Albert Alvin	<i>PC 1</i>	Kankakee
Oveson, Iver Anton	<i>P 1</i>	Chicago
Paprocki, John Henry	<i>P sp</i>	Chicago
Pelc, Joseph	<i>PC 2</i>	Chicago
Person, Frank Daniel	<i>P 2</i>	Chicago
Perzik, William Harry	<i>P sp</i>	Chicago
Pieper, Henry Anthony	<i>P 1</i>	Jacksonville
Poli, Domingo	<i>P 2</i>	Guayama, Porto Rico
Porter, Lillian	<i>P 1</i>	Chicago
Rauschert, Emil Paul	<i>P 1</i>	Lake Mills, Wisconsin
Raycraft, Joseph Winfred	<i>P 2</i>	Springfield
Real, Dennis Bernard	<i>P sp</i>	Moline
Rey, Young	<i>P 2</i>	Soon Chun, Korea
Reed, Robert Charles	<i>P 2</i>	Robinson
Riemer, Edwin Robert	<i>P 2</i>	Chicago
Ritter, William John	<i>P 2</i>	Mattoon
Ritzman, Robert	<i>P 2</i>	Orangeville
Rylander, Reuben August Ferdinand	<i>P 1</i>	Joliet
Sansone, Claude	<i>P sp</i>	Chicago
Schemmel, Alfred Lawrence	<i>P 1</i>	Dyersville, Iowa
Schroeder, Albert Otto	<i>P sp</i>	Palatine
Schultz, Ernest Christian	<i>P 1</i>	Columbus, Wisconsin
Scruggs, Edward Palmer	<i>PC 2</i>	Livingston, Alabama
Seeger, Harold Franklin	<i>P 2</i>	Beardstown
Sikucka, Jeanette Helen	<i>P 1</i>	Chicago
Simmons, Bayard Edwin	<i>P 2</i>	Chicago
Sikyta, Henry William	<i>P 1</i>	Chicago
Slinkard, Ernest Lee	<i>P 2</i>	Grand Junction, Colorado
Spalding, Clifford Rcss	<i>P 2</i>	Clinton, Iowa
Stahl, August Ferdinand	<i>P 2</i>	Chicago
Steffen, Edward Diedrich	<i>P 1</i>	Whitefish, Montana
Strain, Stewart	<i>P 2</i>	Chicago
Tate, William Mack	<i>P 1</i>	Pine Bluff, Arkansas
Templeton, James William	<i>P 1</i>	Rockport, Missouri
Thoroman, Ralph Rickey	<i>P 1</i>	Mt. Sterling
Throckmorton, Lloyd Earl	<i>P sp</i>	Peoria

Trippett, Sidney Bradley	<i>P</i> 1	<i>Texarkana, Arkansas</i>
Turner, Henry Owen	<i>P</i> 1	<i>St. Louis, Missouri</i>
Underriner, Edwin Joseph	<i>P</i> 1	<i>Effingham</i>
Underwood, Ivan Johnson	<i>P</i> 1	<i>Clinton</i>
VanderBogart, Walter Alanson	<i>P</i> 2	<i>Wilmington</i>
Van Kempema, Richard	<i>P</i> 1	<i>Chicago</i>
Vlazny, John George	<i>P</i> 1	<i>Chicago</i>
Vorsanger, Lillian	<i>P</i> 2	<i>Chicago</i>
Waggoner, Athol Leonard	<i>P</i> 2	<i>Lynchburg, Tennessee</i>
Weaver, Robie Rolland	<i>P</i> 1	<i>Muncie, Indiana</i>
Weber, Paul Ernest	<i>P</i> sp	<i>Herscher</i>
Weinstein, Charles	<i>P</i> 1	<i>Chicago</i>
Whitney, Guy Vernon	<i>P</i> 1	<i>Wenona</i>
Wiles, Clarence Edward	<i>P</i> sp	<i>Kankakee</i>
Wischnia, Louis	<i>P</i> 2	<i>Chicago</i>
Woelffer, Roy William	<i>P</i> 2	<i>Lake Mills, Wisconsin</i>
Wokoun, Frank	<i>P</i> 1	<i>Chicago</i>
Wong, Tse Woon	<i>P</i> 1	<i>Hong Kong, China</i>
Zarobsky, Frank James	<i>P</i> sp	<i>Chicago</i>
Zajicek, Adolph	<i>P</i> 2	<i>Chicago</i>
Zalubowski, Anton	<i>P</i> sp	<i>Chicago</i>

DEGREES CONFERRED

1914

THE UNDERGRADUATE COLLEGES

Degrees of Bachelor of Arts, Bachelor of Literature, Bachelor of Science,
and Bachelor of Music

Conferred June 17, 1914

ARTHUR HILDEMAN AAGARD, Bachelor of Science (Mechanical Engineering)
BERTRAM ABNEY, Bachelor of Science (Agriculture)
DONALD WINCHESTER ACER, Bachelor of Arts (Liberal Arts)
KATHARINE EDITH ACER, Bachelor of Arts (Liberal Arts)
EUGENE FRANKLIN ADAMS, Bachelor of Science (Architectural Engineering)
JOSEPH FRANKLIN ADAMS, Bachelor of Science (Architectural Engineering)
WILLIAM ALBERT ALBRECHT, A.B., 1911, Bachelor of Science (Agriculture)
RAYMOND BEAN ALBRIGHT, Bachelor of Arts (Liberal Arts)
JOHN LESLIE ALDEN, Bachelor of Science (Mechanical Engineering)
SARAH LOUISE ALESHIRE, Bachelor of Science (Agriculture)
RUBEN C. ALLEN, Bachelor of Science (Agriculture)
ARTHUR SAMUEL AMBROSE, Bachelor of Science (Agriculture)
HARLOW AYDELOTT AMSBARY, Bachelor of Science (Mechanical Engineering)
EMIL JOSEPH ANDERLE, Bachelor of Science (Ceramics*)
CLARENCE SCOTT ANDERSON, Bachelor of Science (Agriculture)
JOHN HENNING ANDERSON, Bachelor of Science (Civil Engineering)
RENA ANDERSON, Bachelor of Arts (Liberal Arts)
WALTER SEIGFRED ANDERSON, Bachelor of Science (Civil Engineering)
CHAUNCEY BLISS ANDREWS, Bachelor of Science (Agriculture)
CHARLES BECHT ANTHONY, Bachelor of Science (Architecture)
CHARLES HENRY APPLE, Bachelor of Science (Civil Engineering)
ALBERT ANGO APPLGATE, Bachelor of Arts (Liberal Arts)
HOWARD CLINTON ARNOLD, Bachelor of Science (Ceramics*)
CLARENCE MARCELLUS ASHBURN, Bachelor of Arts (Science)
CLARA MABEL ATTERBURY, Bachelor of Science (Agriculture)
EARL KIRKWOOD AUGUSTUS, Bachelor of Science (Agriculture)
JOHN MADISON AVERY, Bachelor of Arts (Science)
ROBERT MILLS BAILIE, Bachelor of Science (Architecture)
ALICE ELIZABETH BAINES, Bachelor of Arts (Liberal Arts)
AMELIA WEST BAKER, Bachelor of Arts (Liberal Arts)
JOSEPH LADD BALLON, Bachelor of Science (Mechanical Engineering)
HARRY TRUMAN BARBER, Bachelor of Science (Agriculture)
PHIL CHASE BARBER, Bachelor of Science (Mechanical Engineering)
CLARENCE BARBRE, Bachelor of Science (Chemistry*)
GEORGE HOLBROOK BARGH, Bachelor of Arts (Liberal Arts)
NELLE ELIZABETH BARRICK, Bachelor of Arts (Liberal Arts)
HENRY WILMONT BARTLING, Bachelor of Science (Electrical Engineering)
FEDERICO BASADRE, Bachelor of Science (Civil Engineering)
GLENN WALLACE BASS, Bachelor of Science (Municipal and Sanitary Engineering)
HARRY LLOYD BAUER, Bachelor of Science (Agriculture)
LEO MICHAEL BAUER, Bachelor of Science (Architecture)
ARTHUR WILLIAM BAUMGARTEN, Bachelor of Science (Electrical Engineering)
VAUGHN BUTLER BAXTER, Bachelor of Science (Agriculture)
AMY ADALINE BEACH, Bachelor of Arts (Liberal Arts)
GEORGE WILSON BEATTIE, Bachelor of Arts, Bachelor of Science (Agriculture)
GEORGE STANLEY BEAUMONT, Bachelor of Science (Agriculture)
CHRISTOPHER KEENEY BEEBE, Bachelor of Arts (Science*)
LEO RICHARD BELL, Bachelor of Science (Mining Engineering)
NUEL DINSMORE BELNAP, Bachelor of Arts (Liberal Arts*)
HARRY WEBB BENJAMIN, Bachelor of Arts (Science)
MERRILL GLENN BENJAMIN, Bachelor of Science (Mechanical Engineering)
LOUISE NANCY BENNETT, Bachelor of Arts (Liberal Arts)
ROBERT LEWIS PENTLEY, Bachelor of Arts, Bachelor of Science (Agriculture)
FLOYD HARRISON BERGLAND, Bachelor of Science (Agriculture)
ADOLPH BERGMAN, Bachelor of Science (Mechanical Engineering)
LESLIE COSBY BERNARD, Bachelor of Science (Architecture)

*With thesis.

EDWARDS HALL BERRY, Bachelor of Science (Electrical Engineering)
 FAY HELEN BICKNELL, Bachelor of Science (Agriculture)
 WALTER EDWARD BILHORN, Bachelor of Science (Civil Engineering)
 JOHN EARL BLACK, Bachelor of Science (Mechanical Engineering)
 FREDERICK JACKSON BLACKBURN, Bachelor of Science (Agriculture)
 EARL BLAINE BLOUGH, Bachelor of Science (Civil Engineering)
 WALTER JOSEPH BLUM, Bachelor of Science (Electrical Engineering)
 LOUIS ANGELO BOETIGGER, Bachelor of Arts (Liberal Arts)
 HAROLD BENJAMIN BOLANDER, Bachelor of Science (Electrical Engineering)
 GEORGE INGELS BOONE, Bachelor of Science (Agriculture)
 SAMUEL P. BOONSTRA, Bachelor of Science (Agriculture)
 KUMUDIJI KANTE BOSE, Bachelor of Science (Mechanical Engineering)
 WARREN EDWARD BOW, Bachelor of Science (Ceramic Engineering*)
 WALTER HOWARD BOYER, Bachelor of Science (Civil Engineering)
 DOROTHY MAE BRAYTON, Bachelor of Arts (Science)
 LINCOLN BALES BREEDLOVE, Bachelor of Science (Mechanical Engineering)
 WINTRESS BRENNAN, Bachelor of Arts (Liberal Arts)
 JOHN FRED BRETON, Bachelor of Science (Mechanical Engineering)
 JAMES SAMUEL BROCK, Bachelor of Science (Agriculture)
 WAYNE GOTTLIEB BROEHL, Bachelor of Arts (Liberal Arts)
 CLIFFORD ALLEN BROWN, Bachelor of Science (Agriculture)
 EDWARD SUTHERLAND BROWN, Bachelor of Science (Agriculture)
 HORACE TROWERIDGE BROWN, Bachelor of Science (Civil Engineering)
 NORMAN FERDINAND BRUNKOW, Bachelor of Arts (Liberal Arts)
 WALTER JOHN BUBLITZ, Bachelor of Science (Civil Engineering)
 PHILIP ELIOT BUCK, Bachelor of Science (Civil Engineering)
 ADOLPH OTTO BUDINA, Bachelor of Science (Architecture)
 MICHAEL BUHAL, Bachelor of Science (Architectural Engineering)
 GERALDINE ALICE BULLARD, Bachelor of Arts (Liberal Arts)
 FRANCIS HENRI BULOT, Bachelor of Science (Municipal and Sanitary Engineering)
 ALICE AMELIA BUMSTEAD, Bachelor of Science (Agriculture)
 MAMIE BUNCH, Bachelor of Arts (Science)
 RALPH WILLIAM BUNGE, Bachelor of Science (Mechanical Engineering)
 LYMAN JESSE BUNTING, Bachelor of Science (Agriculture)
 CARL IRVEN BURGGRAF, Bachelor of Science (Civil Engineering)
 RALPH BURKE, Bachelor of Science (Mechanical Engineering)
 WILLIAM BURNETT, JR., Bachelor of Science (Electrical Engineering)
 FRANKLIN BARNHART BURNS, Bachelor of Arts (Liberal Arts)
 THOMAS CLIFFORD BURWASH, Bachelor of Arts (Liberal Arts)
 JEWELL CECIL BUTLER, Bachelor of Science (Electrical Engineering)
 WILLIAM GLENN BUTLER, Bachelor of Science (Agriculture)
 HARLEY MARION BUTT, Bachelor of Science (Civil Engineering)
 MARK ADOLPH BUTTONMAKER, Bachelor of Science (Ceramics*)
 EMMA BERTHA BUTZOW, Bachelor of Arts (Liberal Arts)
 HARRIET ANNE BYRNE, Bachelor of Arts (Science)
 GRACE AMELIA CAMPBELL, Bachelor of Arts (Liberal Arts)
 RUTH MAE CANFIELD, Bachelor of Arts (Liberal Arts)
 GERALD VINCENT CARRIER, Bachelor of Arts (Liberal Arts)
 PAULINE ADELA CARRIER, Bachelor of Music
 ISAAC RAY CARTER, Bachelor of Arts (Liberal Arts)
 CHARLES FINDLAY CARTWRIGHT, Bachelor of Science (Civil Engineering)
 SIDNEY CASNER, Bachelor of Arts (Liberal Arts)
 CARLOS CASTELAZO CASTILLO, Bachelor of Science (Railway Civil Engineering)
 DEAN CHASE, Bachelor of Science (Municipal and Sanitary Engineering)
 KATHERINE TRUESDELL CHASE, Bachelor of Arts (Liberal Arts)
 LEO MORELLE CHESBROWN, Bachelor of Science (Mechanical Engineering)
 RALPH COOKMAN CHESTNUTT, Bachelor of Science (Mechanical Engineering)
 SUNG SHU CHIEN, Bachelor of Arts (Science)
 ERWIN OLTONAR CHRISTENSON, Bachelor of Science (Architecture)
 BESSIE FERN CHRISTOPHER, Bachelor of Science (Agriculture)
 TSIN CHUANG, Bachelor of Science (Architectural Engineering)
 JAMES ERROL CHURCHILL, Bachelor of Science (Electrical Engineering)
 STEPHEN THURSTON CLAFIN, Bachelor of Arts (Science)
 CHESTER ARTHUR CLARK, Bachelor of Science (Agriculture)
 DAVID ROLAND CLARKE, Bachelor of Arts (Liberal Arts)
 ETHEL CLARKE, Bachelor of Arts (Science)
 ELIZABETH JOHANNA CLAUSEN, Bachelor of Science (Agriculture)
 LEILLA BELLE CLEGHORN, Bachelor of Arts (Liberal Arts)
 OLEN ROBERT CLEMENTS, Bachelor of Arts (Liberal Arts)
 MARY ELLA CLIMER, Bachelor of Arts (Science)
 BESSIE FLORENCE CLINE, Bachelor of Arts (Liberal Arts)
 LAWRENCE ALBERT CLINE, Bachelor of Science (Civil Engineering)
 FRANCES MARION COCKRELL, Bachelor of Science (Electrical Engineering)
 HARRY ELLSWORTH CODLIN, Bachelor of Science (Agriculture)
 HAZEL BELLE COFFEY, Bachelor of Arts (Liberal Arts)
 ALEXANDER COHN, Bachelor of Arts (Science)
 JAMES RUBIN COLBERT, Bachelor of Arts (Liberal Arts)
 HUGH LEON COLE, Bachelor of Science (Agriculture)
 HELEN BELL COMSTOCK, Bachelor of Arts (Liberal Arts)
 LOURDE JOSEPH CONBOY, Bachelor of Science (Electrical Engineering)
 FLORENCE AVIS COULTAS, Bachelor of Arts (Liberal Arts)

*With thesis.

ARETE CAROLINE COVEY, Bachelor of Arts (Liberal Arts)
 ANNA ETHEL COX, Bachelor of Arts (Liberal Arts)
 REX WARFIELD COX, Bachelor of Science (Agriculture)
 GLENN EWING CRAFT, Bachelor of Science (Agriculture)
 CLARA GLADYS CRONK, Bachelor of Science (Agriculture)
 MYRTLE AMY CRUZAN, Bachelor of Arts (Liberal Arts)
 JOHN CUTLER, Bachelor of Science (Mechanical Engineering)
 RUDOLPH WALTER CUTSHALL, Bachelor of Science (Architecture)
 FRED ERWIN DACE, Bachelor of Science (Electrical Engineering)
 HEWEY MILLER DALE, Bachelor of Arts (Liberal Arts)
 FRED HENRY DALLENBACH, Bachelor of Science (Electrical Engineering)
 RALPH RAYMOND DANIELSON, Bachelor of Science (Ceramics*)
 HARRY OTTO DANZ, Bachelor of Science (Mechanical Engineering)
 BANESVAR DASS, Bachelor of Science (Chemical Engineering*)
 HALE PLAIN DAUGHERTY, Bachelor of Arts (Liberal Arts)
 ALICE VICTORIA DAVENPORT, Bachelor of Arts (Liberal Arts)
 RAYMOND EVAN DAVIES, Bachelor of Arts (Science)
 THOMAS ANDREW DAVIS, Bachelor of Science (Civil Engineering)
 BEATRICE EARLE DEAN, Bachelor of Arts (Liberal Arts)
 HAROLD BURTON DEETS, Bachelor of Science (Agriculture)
 LEMUEL DFOREST, Bachelor of Science (Mechanical Engineering)
 ROY VAN LIEW DEMOTT, Bachelor of Arts (Liberal Arts)
 HERBERT DEVINE, Bachelor of Science (Mechanical Engineering)
 VIVIAN PERSIS DEWEY, Bachelor of Arts (Liberal Arts)
 MARY ESTELLA DEWOLFE, Bachelor of Arts (Liberal Arts)
 LULA BELLE DEXTER, Bachelor of Arts (Liberal Arts)
 HARRY KIMBAL DICK, Bachelor of Science (Architectural Engineering)
 EARL BURRUS DICKERSON, Bachelor of Arts (Liberal Arts)
 EVA DODDS, Bachelor of Arts (Liberal Arts)
 EDWARD ADELBERT DOISY, Bachelor of Arts (Science*)
 JOHN THOMAS DONAHOE, Bachelor of Science (Electrical Engineering)
 ELYZABETH FRANCES DONALDSON, Bachelor of Arts (Science)
 RAYMOND THOMAS DOUGLAS, Bachelor of Science (Mechanical Engineering)
 GEORGE HAROLD DUBIN, Bachelor of Science (Architecture)
 RAYMOND STARR DUNHAM, Bachelor of Science (Agriculture)
 MATTHEW ELBRIDGE DUNLAP, Bachelor of Science (Architectural Engineering)
 WILLIAM GUY DUNLAP, Bachelor of Arts (Liberal Arts)
 JESSIE FAY EDMUNDSON, Bachelor of Arts (Science)
 GEORGE CURTIS ELLIS, Bachelor of Arts (Science)
 ARMIN ELMENDORF, Bachelor of Science (Mechanical Engineering)
 HUBERT MORTON ENGLISH, Bachelor of Arts (Science*)
 COLLISTUS JAMES ENNIS, Bachelor of Arts (Liberal Arts)
 RALPH LEE EYMAN, Bachelor of Science (Agriculture)
 DANIEL BALDWIN FAGER, Bachelor of Arts (Liberal Arts)
 HELEN FAIRFIELD, Bachelor of Arts (Liberal Arts)
 MYERLIN STEIN FALLIS, Bachelor of Science (Architectural Engineering)
 SAMUEL JAMES FARLOW, Bachelor of Science (Architectural Engineering)
 LESLIE WILLIAM FAULKNER, Bachelor of Science (Electrical Engineering)
 MARY EMMA FELTER, Bachelor of Arts (Liberal Arts)
 JOHN MOFFAT FETHERSON, Bachelor of Science (Railway Electrical Engineering)
 FRANK CHRISTIAN FEUTZ, Bachelor of Science (Civil Engineering)
 WILLIAM FULLER FIELDER, Bachelor of Arts (Science)
 ELMER ELLSWORTH FIERO, Bachelor of Arts (Liberal Arts)
 HENRY LAWRENCE FISCHER, Bachelor of Science (Mechanical Engineering)
 WALTER LLOYD FISHER, Bachelor of Science (Railway Civil Engineering)
 CASSIUS PAUL FLETCHER, Bachelor of Science (Civil Engineering)
 JOHN ARCHIBALD FLETCHER, Bachelor of Science (Agriculture)
 EDMOND ROY FOSTER, Bachelor of Science (Architectural Engineering)
 ORA FRENCH FOSTER, Bachelor of Science (Agriculture)
 LESTER EUGENE FRAILEY, Bachelor of Arts (Liberal Arts)
 WILLIAM LEONARD FRANK, Bachelor of Arts (Science), Bachelor of Science (Agriculture)
 RUSSELL CARD FRAZEE, Bachelor of Science (Agriculture)
 JAMES B. FRAZIER, JR., Bachelor of Science (Agriculture)
 HENRY HELM FRENCH, Bachelor of Science (Railway Mechanical Engineering)
 RALPH WALDO FRENCH, Bachelor of Science (Agriculture)
 GEORGE ELMORE GABLE, Bachelor of Science (Architecture)
 ALBERT MACY GADDIS, Bachelor of Science (Electrical Engineering)
 ROBERT PERCY GAGE, Bachelor of Science (Agriculture)
 ANNA MARIE GALLAGHER, Bachelor of Arts (Liberal Arts)
 DONALD TUNNICLIFFE GAMBLE, Bachelor of Science (Agriculture)
 JAMES FRANKLIN GARRETT, Bachelor of Science (Chemical Engineering*)
 DELA ALICE GASKILL, Bachelor of Arts (Science)
 HELEN BEATRICE GERE, Bachelor of Arts (Liberal Arts)
 ROY LYLE GETMAN, Bachelor of Science (Civil Engineering)
 FREDERICK JOHN GIEHLER, Bachelor of Science (Architectural Engineering)
 MARY ELSIE GILDERSLEEVE, Bachelor of Arts (Science)
 LEONARD WOOD GLOVER, A.B., 1912, Bachelor of Music
 PHILIP HILTON GOLDBERG, Bachelor of Arts (Science)
 RAE GOLDMAN, Bachelor of Arts (Liberal Arts)
 ALBERT GONSIOR, Bachelor of Science (Civil Engineering)
 LEONE IONE GOODMAN, Bachelor of Arts (Liberal Arts)

*With thesis.

HELEN WINIFRED GRANT, Bachelor of Arts (Liberal Arts)
 GEORGE MANNERS GRANTHAM, Bachelor of Science (Agriculture)
 BERTHA AGNES GREEN, Bachelor of Music
 ARTHUR RITCHIE GREENE, Bachelor of Science (Agriculture)
 ERWIN GRIESBAUM, Bachelor of Science (Mechanical Engineering)
 WILLIAM LEROY GRIFFIN, Bachelor of Arts (Liberal Arts)
 CLARENCE PATRICK GRIFFITH, Bachelor of Science (Architectural Engineering)
 AVIS GWINN, Bachelor of Arts (Liberal Arts)
 RICHARD HARTLOFF HABBE, Bachelor of Arts (Liberal Arts)
 STANLEY BEAR HADDON, Bachelor of Science (Mechanical Engineering)
 RUSSELL PRITCHETT HALL, Bachelor of Science (Agriculture)
 THOMAS DENNISON HALL, A.B., Bachelor of Science (Agriculture)
 RUTH HALLIDAY, Bachelor of Arts (Liberal Arts)
 ELIJAH ROBERT HATOWSKI, Bachelor of Science (Electrical Engineering)
 PAUL ALBERT HANDKE, Bachelor of Science (Ceramics*)
 ERNEST, FLOYD HANES, Bachelor of Arts (Liberal Arts)
 HELEN LEIGH HANES, Bachelor of Arts (Science)
 ORVILLE GERBER HANKINS, Bachelor of Science (Agriculture)
 MABEL LAURINE HANSEN, Bachelor of Science (Agriculture)
 ROY HANSEN, Bachelor of Science (Agriculture)
 ROY WALFRED HANSEN, Bachelor of Science (Architectural Engineering)
 RALPH WILBUR HARDINGER, Bachelor of Arts (Science)
 HARRIS JACOB HARMAN, Bachelor of Science (Civil Engineering)
 EDWARD CLARKE HARPER, Bachelor of Science (Architecture)
 HANNAH JEWEL HARRIS, Bachelor of Arts (Liberal Arts)
 MARGARET RAY HARRIS, Bachelor of Arts (Liberal Arts)
 WILLIAM HARRIS, Bachelor of Arts (Liberal Arts)
 PAUL MATHEW HART, Bachelor of Science (Electrical Engineering)
 NELLE MAE HARTSOCK, Bachelor of Arts (Liberal Arts)
 EDWIN LAURIE HASKER, Bachelor of Arts (Liberal Arts)
 ALICE RUTH HATCH, Bachelor of Arts (Science)
 ALFRED DEWITT HAWLEY, Bachelor of Arts (Science)
 PAUL HAYHURST, A.B., (University of Missouri) 1904, Bachelor of Science (Agriculture)
 AUGUST GEORGE HECHT, Bachelor of Science (Agriculture)
 EMIL NICHOLAS HEIDKAMP, Bachelor of Science (Civil Engineering)
 FRED HENDERSON, Bachelor of Science (Agriculture)
 HENRY HARRISON HENLINE, Bachelor of Science (Electrical Engineering)
 THOMAS McDONALD HEPBURN, Bachelor of Science (Civil Engineering)
 CARRIE BELLE HERDMAN, Bachelor of Arts (Science)
 CHARLES BROWN HERSHEY, Bachelor of Arts (Liberal Arts)
 CAROLINE ELIZABETH HESSELBAUM, Bachelor of Arts (Liberal Arts)
 MAX BROWN HIGGINS, Bachelor of Science (Architectural Engineering)
 CHARLES FRANCES HILL, Bachelor of Arts (Science)
 CHAUNCEY STEVENS HILL, Bachelor of Science (Agriculture)
 JOHN WILLIAM HILL, Bachelor of Science (Civil Engineering)
 WILMA MARIE HILL, Bachelor of Arts (Liberal Arts)
 ARTHUR BURGESS HILLMAN, Bachelor of Science (Civil Engineering)
 HAZEL ELIZABETH HINSHAW, Bachelor of Arts (Liberal Arts)
 JACKSON EDWARD HIRSCHL, Bachelor of Science (Architecture)
 AXEL MAGNUS HJORT, Bachelor of Arts (Science*)
 WILLIAM BROOKS HODGINS, Bachelor of Science (Mechanical Engineering)
 FRANK JOSEPH HOFFMAN, Bachelor of Science (Architecture)
 WALTER EDWARD HOLMES, Bachelor of Science (Municipal and Sanitary Engineering)
 ARTHUR PARKER HOLT, Bachelor of Science (Agriculture)
 FRANKIE LEE HOLTON, Bachelor of Arts (Liberal Arts)
 FERDINAND HOMANN, Bachelor of Arts (Science), Bachelor of Science (Agriculture)
 ISABEL HOOVER, Bachelor of Arts (Liberal Arts)
 ELLIOTT BUDD HOPKINS, Bachelor of Science (Mechanical Engineering)
 ROY ARTHUR HORNING, Bachelor of Science (Ceramics*)
 LOUIS JULIUS HORWICH, Bachelor of Science (Architecture)
 HELEN ELIZABETH HOUGH, Bachelor of Arts (Liberal Arts)
 JOHN SMITH HOUSMAN, Bachelor of Science (Mining Engineering)
 EDWARD GARDINER HOWE, JR., Bachelor of Science (Agriculture)
 HERBERT EDWARD HOWES, Bachelor of Science (Agriculture)
 TSUNG HAN HSU, Bachelor of Arts (Science)
 CECIL A HUGHES, Bachelor of Science (Agriculture)
 JAMES ALBERT HUNTER, Bachelor of Arts (Liberal Arts)
 RUTH HUTCHINSON, Bachelor of Arts (Liberal Arts)
 NOBTARO INAGAKI, Bachelor of Arts (Liberal Arts*)
 EDA AUGUSTE JACOB, Bachelor of Arts (Liberal Arts)
 MARVIN EDWARD JAHR, A.B., (University of Wisconsin) 1905, Bachelor of Science (Agriculture)
 JOHN MOLLER JANSON, Bachelor of Arts (Science*)
 DORETTE THAYER JOHN, Bachelor of Arts (Liberal Arts)
 WILFORD ESPIN JOHNS, Bachelor of Science (Agriculture)
 ROBERT CARL JOHNSON, Bachelor of Arts (Liberal Arts)
 ROBERT ULYSSES JOHNSON, Bachelor of Science (Architectural Engineering)
 HERBERT W JORY, Bachelor of Science (Architecture)
 CHEN CHI KAN, Bachelor of Arts (Liberal Arts)
 ROY ALEXANDER KANE, Bachelor of Science (Architecture)
 FRANK JOSEPH KARCHER, Bachelor of Arts (Science)
 HENRY GILBERT KARGES, Bachelor of Science (Architectural Engineering)

*With thesis.

ROBERT FERDINAND KAUN, Bachelor of Science (Electrical Engineering)
 ARCH FLOYD KEEHNER, Bachelor of Science (Civil Engineering)
 BESSIE OPAL KELLER, Bachelor of Arts (Liberal Arts)
 RALPH LEVERATT KELLEY, Bachelor of Science (Architecture)
 FREDERICK NEWCOMB KENYON, Bachelor of Science (Agriculture)
 OSCAR B KERCHER, Bachelor of Science (Civil Engineering)
 OTIS KERCHER, Bachelor of Science (Agriculture)
 ESTHER ALLEN KERN, Bachelor of Arts (Liberal Arts)
 PAUL FRANCIS KERRIGAN, Bachelor of Arts (Science)
 ALBERT EUGENE KIDD, Bachelor of Arts (Liberal Arts)
 HUBERT ST. CLAIR KILBY, Bachelor of Science (Electrical Engineering)
 FLORENCE BEESON KING, Bachelor of Science (Agriculture)
 WAYNE ISAAC KIRBY, Bachelor of Science (Architecture)
 GEORGE GODWIN KIRK, Bachelor of Science (Agriculture)
 ANNIRENE KIRKLAND, Bachelor of Arts (Liberal Arts)
 FRANK ALLEN KIRKPATRICK, Bachelor of Science (Ceramic Engineering*)
 NELL RUTH KIRKPATRICK, Bachelor of Arts (Liberal Arts)
 GEORGE MINNIE KLEIN, Bachelor of Arts (Science)
 BERNIE LLOYD KLEINSHRODT, Bachelor of Science (Agriculture)
 ELIZABETH KNOWLTON, Bachelor of Arts (Liberal Arts)
 MIRIAM KNOWLTON, Bachelor of Arts (Liberal Arts)
 PHILETUS CLARKE KNOWLTON, JR., Bachelor of Science (Architecture)
 VI TSING KOO, Bachelor of Science (Electrical Engineering)
 SAM KORSHAK, Bachelor of Science (Architecture)
 EDWARD MAX KRABBE, Bachelor of Science (Railway Electrical Engineering)
 TSONG-LIN KU, Bachelor of Arts (Liberal Arts*)
 HENRY HARRISON KUHN, Bachelor of Science (Mechanical Engineering)
 EDITH JANE LAMB, Bachelor of Arts (Liberal Arts)
 HERBERT UPDIKE LONDON, Bachelor of Science (Agriculture)
 ETTA MABEL LANTZ, Bachelor of Arts (Liberal Arts)
 EVA LILLIAN LARSON, Bachelor of Arts (Liberal Arts)
 JOSEPH CONRAD LAWLESS, Bachelor of Science (Agriculture)
 ERNEST LAWRENCE, Bachelor of Science (Agriculture)
 YING NAN LEE, Bachelor of Arts (Liberal Arts)
 WILLIS LERICHE, Bachelor of Science (Mining Engineering)
 CLARA VESTA LEWIS, Bachelor of Arts (Liberal Arts)
 LAURA LOUISE LEWIS, Bachelor of Science (Agriculture)
 LESLIE ALVIN LIGGETT, Bachelor of Science (Civil Engineering)
 LEWIS S LINDER, Bachelor of Arts (Science)
 BESS MAE LINDLEY, Bachelor of Arts (Liberal Arts)
 OSCAR LIPPMAN LISS, Bachelor of Science (Civil Engineering)
 WALLACE BRIGHT LIVESAY, Bachelor of Science (Architectural Engineering)
 ASUNCION V LOPEZ, Bachelor of Science (Civil Engineering)
 JOHN EDWIN LOUIS, Bachelor of Science (Municipal and Sanitary Engineering)
 PAUL ELTON LOWER, Bachelor of Science (Agriculture)
 COEN L LUCKETT, Bachelor of Arts (Science*)
 ERWIN MOSES LURIE, Bachelor of Science (Civil Engineering)
 ROY JACOBS LYONS, Bachelor of Science (Agriculture)
 CLAUDE LEE McCABE, Bachelor of Arts (Liberal Arts)
 KENNETH ALEXANDER McCASKILL, Bachelor of Science (Agriculture)
 LOUIS DOUGLAS McCaughey, Bachelor of Science (Electrical Engineering)
 ISAAC MARION McCONNEL, Bachelor of Science (Agriculture)
 ELMER McCORMICK, Bachelor of Science (Mechanical Engineering)
 HOWARD ORR McCracken, Bachelor of Science (Agriculture)
 JAMES EDWARD WILLIAM McDONALD, Bachelor of Science (Mining Engineering)
 ELLIS DEAN McFARLAND, Bachelor of Science (Agriculture)
 EDNA AMELIA McGEE, Bachelor of Arts (Liberal Arts)
 JAMES MILES McGRATH, Bachelor of Arts (Science)
 KATHERINE LESLIE McGRAW, Bachelor of Arts (Liberal Arts)
 OLIVETTE C McKEE, Bachelor of Arts (Science)
 JAMES WILLIAM McLAUGHLIN, Bachelor of Science (Mechanical Engineering)
 THOMAS NEWKIRK McVAY, Bachelor of Science (Ceramic Engineering*)
 DANIEL VALENTINE McWETHY, Bachelor of Arts (Liberal Arts)
 CLAYTON LEE MALAISE, Bachelor of Science (Electrical Engineering)
 EDITH MELVINA MANN, Bachelor of Arts (Liberal Arts)
 DUBOIS MARQUIS, Bachelor of Science (Agriculture)
 ROBERT HASKELL MARSHALL, Bachelor of Arts (Science)
 AARON MATHERS, Bachelor of Arts (Liberal Arts*)
 WILLIAM BRASHEAR MATTINGLY, Bachelor of Science (Agriculture)
 CHARLES FONTAINE MAURY, Bachelor of Science (Architecture)
 THOMAS EDWARD MAURY, Bachelor of Science (Mechanical Engineering)
 ARTHUR FRANKLIN MELLEN, Bachelor of Arts (Science)
 INA VALERIA MEREDITH, Bachelor of Arts (Science)
 THOMPSON ARLENE MERRILL, Bachelor of Arts (Liberal Arts)
 MARSHALL CRITTENDON MERRILLS, Bachelor of Arts (Liberal Arts*)
 GEORGE MEYER, JR., Bachelor of Science (Mechanical Engineering)
 JOSEPH PORTER MILES, Bachelor of Science (Agriculture)
 CLAYTON ALLEN MILLER, Bachelor of Science (Electrical Engineering)
 MARCUS GILBERT MILLER, Bachelor of Science (Architecture)
 OLIVE FIEDELE MILLER, Bachelor of Arts (Liberal Arts)
 MINNIE ISABEL MILNE, Bachelor of Arts (Science)
 LESTER WARD MINER, Bachelor of Science (Agriculture)

*With thesis.

HELEN MITCHELL, Bachelor of Arts (Liberal Arts)
 GUNDAYU MIZOGUCHI, Bachelor of Science (Electrical Engineering)
 ROBERT BURRELL MOIR, Bachelor of Science (Civil Engineering)
 MARGARET ELLEN MOLT, Bachelor of Arts (Liberal Arts)
 RUBY FRANCES MOORE, Bachelor of Arts (Liberal Arts)
 CHARLES LEONARD MORGAN, Bachelor of Science (Architecture)
 GRACE BUSEY MORGAN, Bachelor of Arts (Liberal Arts)
 DONALD KENNETH MORRISON, Bachelor of Arts (Science)
 JESSIE MORSE, Bachelor of Arts (Liberal Arts)
 HARRIE STEVENS MUELLER, Bachelor of Science (Agriculture)
 CHARLES STEWART MULVANEY, Bachelor of Science (Civil Engineering)
 MILTON MURR, Bachelor of Science (Civil Engineering)
 ODESSA MADGE MYERS, Bachelor of Arts (Liberal Arts*)
 MARCELLA ELIZABETH ADALAIDE NAGEL, Bachelor of Science (Agriculture)
 FRANK JOSEPH NAPISTEK, Bachelor of Science (Architectural Engineering)
 MYER OSCAR NATHAN, Bachelor of Arts (Science), Bachelor of Science (Architecture)
 DORA MYRTLE NEBEL, Bachelor of Arts (Liberal Arts)
 HELEN MONTGOMERY NEEDLER, Bachelor of Science (Agriculture)
 PETER SWAN NELSON, Bachelor of Science (Mechanical Engineering)
 TSUNYOONG, NEW, Bachelor of Science (Agriculture)
 NAOMI OLIVE NEWBURN, Bachelor of Arts (Liberal Arts)
 GEORGE ARTHUR NEWELL, JR., Bachelor of Arts (Liberal Arts*)
 FRANCES ALICETTA NICHOL, Bachelor of Arts (Liberal Arts)
 JOHN MINERT NICKELSEN, Bachelor of Science (Mechanical Engineering)
 JOHN ELIOT NOON, Bachelor of Arts (Liberal Arts)
 EDWIN FRANCIS NOTH, Bachelor of Science (Architecture)
 ALLEEN HALL O'BAR, Bachelor of Arts (Liberal Arts)
 AGNES MILDRED OLSON, Bachelor of Arts (Liberal Arts)
 ARTHUR HENRY ORCUTT, Bachelor of Arts (Science), Bachelor of Science (Agriculture)
 BENITO RENE ORDONEZ, Bachelor of Science (Railway Electrical Engineering)
 LELIA MAE ORMSBY, Bachelor of Arts (Science*)
 CLARENCE ORR, Bachelor of Arts (Liberal Arts)
 HAROLD VAUGHAN ORR, Bachelor of Science (Electrical Engineering)
 MARY ELIZABETH ORR, Bachelor of Arts (Liberal Arts)
 LELAND GEORGE OSBORN, Bachelor of Arts (Science)
 HAROLD PAUL OUSLEY, Bachelor of Arts (Liberal Arts*)
 RAYMOND WILLIAM OWENS, Bachelor of Science (Electrical Engineering)
 OLIVE ALLEN PAINE, Bachelor of Arts (Science)
 JULIUS CLARK PALMER, Bachelor of Science (Electrical Engineering)
 JOHN WALLACE PARK, Bachelor of Science (Architecture)
 HELEN LUCY PARKER, A.B., 1913, Bachelor of Music
 EARLE HENDERSON PARKINS, Bachelor of Science (Agriculture)
 LLOYD HERMAN PASEWALK, Bachelor of Science (Civil Engineering)
 VEDA LOUISE PAYNE, Bachelor of Arts (Science)
 EARL D PEADRO, Bachelor of Science (Civil Engineering)
 WILLIAM MCCORD PEEPLES, Bachelor of Arts (Science)
 CARRY MAY PERVIER, Bachelor of Arts (Liberal Arts)
 HILDING CUNARD REYNOLDS PETERSON, Bachelor of Science (Mechanical Engineering)
 JOHN CARNE PHELPS, Bachelor of Science (Mechanical Engineering)
 JOHN JOSEPH PITTS, JR., Bachelor of Arts (Liberal Arts)
 THEODORE PLACK, Bachelor of Science (Civil Engineering)
 CATHERINE MELVINA PLANCK, Bachelor of Science (Agriculture)
 CASPER PLATT, Bachelor of Arts (Liberal Arts)
 PAUL WRIGHT POGUE, Bachelor of Arts (Liberal Arts)
 LELIA JEAN POLLARD, Bachelor of Science (Agriculture)
 HARRY ROBB POLLOCK, Bachelor of Science (Agriculture)
 ANTONIO PORTUANDO Y MIYARES, Bachelor of Science (Agriculture)
 MERTIE AMALIA POSTEL, Bachelor of Arts (Liberal Arts)
 FLOYD EMERSON POSTON, Bachelor of Arts (Science)
 LEROY TALLMAN POWERS, Bachelor of Science (Agriculture)
 ANTON PRASIL, Bachelor of Science (Chemical Engineering*)
 PAUL RUDOLPH ARCTANDER PREUS, Bachelor of Science (Civil Engineering)
 EDWIN CHESTER PROUTY, Bachelor of Science (Civil Engineering)
 WILLIAM SING-CHONG PUNG, Bachelor of Science (Railway Civil Engineering)
 GEORGE EDWARD QUIRCK, Bachelor of Science (Architectural Engineering)
 BERNICE MAE QUINN, Bachelor of Arts (Liberal Arts)
 LEONIDAS WILLING RAMSEY, Bachelor of Science (Agriculture)
 HALLIE BURNSIDE RANDOLPH, Bachelor of Science (Agriculture)
 CARL KING RANG, Bachelor of Arts (Liberal Arts)
 BENJAMIN JULIUS RAPPAPOORT, Bachelor of Science (Architectural Engineering)
 ALFRED RAUT, Bachelor of Science (Agriculture)
 CARL ERIC REDBORG, Bachelor of Arts (Liberal Arts)
 HERMAN THORNTON REEVES, Bachelor of Science (Agriculture)
 ERNEST ALEXANDER REID, Bachelor of Science (Electrical Engineering)
 RAYMOND THOMAS REILLY, Bachelor of Science (Municipal and Sanitary Engineering)
 ROBERT RUTTER REIMERT, JR., Bachelor of Science (Architectural Engineering)
 SYLVIA PEARL RENNER, Bachelor of Science (Agriculture)
 RUTH MARGARET RENWICK, Bachelor of Arts (Liberal Arts)
 DAPHNE MARGARET REXWINKLE, Bachelor of Music
 GROVER COLVIN RICE, Bachelor of Arts (Science)
 HUGH MONROE RICE, Bachelor of Science (Agriculture)
 PAUL COBB RICH, Bachelor of Science (Chemical Engineering*)

*With thesis.

HELEN MARIE RICHARDS, Bachelor of Arts (Science*)
 CHARLES RICHARDSON, Bachelor of Science (Agriculture)
 FRANK ERWIN RICHART, Bachelor of Science (Civil Engineering)
 FRIEDEL CHAPIN RICHEY, Bachelor of Science (Agriculture)
 DAVID MORRIS RIFF, Bachelor of Science (Civil Engineering)
 JULES HENRY ROBERT, Bachelor of Science (Mechanical Engineering)
 ERMA DOROTHY ROBERTS, Bachelor of Science (Agriculture)
 KENNETH EDWARD ROCKHOLD, Bachelor of Science (Ceramic Engineering*)
 ALFRED ROBERT ROHLFING, Bachelor of Arts (Liberal Arts)
 VERN ANTON ROWLAND, Bachelor of Science (Architectural Engineering)
 OSCAR ROMAN, Bachelor of Science (Agriculture)
 CARRIE LEE ROUTH, Bachelor of Arts (Liberal Arts)
 WILFRED CROUCH ROPIEQUET, Bachelor of Arts (Liberal Arts)
 GLENN THOMPSON ROSS, Bachelor of Arts (Liberal Arts)
 JESSIE BLANCHE ROTHGEB, Bachelor of Arts (Liberal Arts)
 ENOS MARION ROWE, Bachelor of Science (Agriculture)
 FLOYD ELBA ROWLAND, Bachelor of Arts (Science)
 SURYA KANTA ROY, Bachelor of Science (Agriculture)
 JOHN GARLAND RUCKEL, Bachelor of Science (Agriculture)
 NONDAS CAROLINE RUSSEL, Bachelor of Arts (Liberal Arts)
 JOSE URBANA SALAZAR, Bachelor of Science (Agriculture)
 LAURA MARIE SANDERS, Bachelor of Arts (Science)
 RALPH LLOYD SANDERS, Bachelor of Science (Civil Engineering)
 LILLIAN WATERS SAVAGE, Bachelor of Arts (Liberal Arts)
 MARGARET SAWYER, Bachelor of Science (Agriculture)
 WALTER HOWARD SCALES, Bachelor of Science (Architectural Engineering)
 EMIL FERDINAND SCHAARMAN, Bachelor of Arts (Liberal Arts)
 MABEL EVA SCHATZ, Bachelor of Arts (Science)
 OTTO GEORGE SCHAEFFER, Bachelor of Science (Agriculture)
 EMMA EUGENIE SCHALLER, Bachelor of Arts (Liberal Arts)
 EMIL PAUL SCHREIER, Bachelor of Science (Architecture)
 GLENN WILSON SCHROEDER, Bachelor of Science (Agriculture*)
 HAZEL MARGUERITE SCHULTZ, Bachelor of Science (Agriculture)
 ERNEST SOMERS SCOTT, Bachelor of Science (Electrical Engineering)
 OGLE HESSE SEARS, Bachelor of Science (Agriculture)
 EDMUND CLAY SECOR, Bachelor of Science (Agriculture)
 ESTHER BEULAH SEELEY, Bachelor of Arts (Liberal Arts)
 SENTARO SEKINE, Bachelor of Arts (Liberal Arts)
 SIDNEY ISAAC SEWELL, Bachelor of Science (Ceramic Engineering*)
 EARL PAGE SHAPLAND, Bachelor of Science (Mechanical Engineering)
 BERTHA LEE SHARP, Bachelor of Arts (Liberal Arts*)
 FRANK THOMAS SHEETS, Bachelor of Science (Municipal and Sanitary Engineering)
 WARREN MAXWELL SHELTON, Bachelor of Science (Agriculture)
 WILMA LOY SHELTON, Bachelor of Arts (Liberal Arts)
 JAMES DOUGLASS SHEPPERD, Bachelor of Science (Electrical Engineering)
 WILLIAM DAVIS SHIPMAN, Bachelor of Science (Civil Engineering)
 FRED GLEN SHOEMAKER, Bachelor of Science (Electrical Engineering)
 NIM CHI SHUM, Bachelor of Science (Chemistry*)
 HARRY GEORGE SHURECHT, Bachelor of Science (Ceramics*)
 CARL WILLIAM JOHN SIEVERT, Bachelor of Science (Chemical Engineering*)
 WILFRED CARL SIGERSON, Bachelor of Arts (Liberal Arts)
 JOHN LAWRENCE SIMONICH, Bachelor of Science (Electrical Engineering)
 JOHN KNOX SKINNER, Bachelor of Arts (Science)
 FRANK CLIFTON SLATER, Bachelor of Arts (Liberal Arts)
 ROBERT LEROY SMART, Bachelor of Science (Civil Engineering)
 FRANK JOHN SMEJKAL, Bachelor of Science (Agriculture)
 CHARLES ROGER SMITH, Bachelor of Science (Agriculture)
 DONALD JENKS SMITH, Bachelor of Science (Electrical Engineering)
 MARQUIS JOSEPH SMITH, Bachelor of Science (Agriculture)
 REUEL LHAMON SMITH, Bachelor of Science (Mechanical Engineering)
 ROBERT SMITH, JR., Bachelor of Science (Mechanical Engineering)
 STANLEY CHRISTOPHER SMITH, Bachelor of Arts (Liberal Arts*)
 WILSON MARSHALL SMITH, Bachelor of Arts (Liberal Arts)
 ALBERT THORNTON SMITHSON, Bachelor of Science (Architecture)
 LOGAN ABRAHAM SNYDER, Bachelor of Science (Agriculture)
 ELSIE TRAVILLA SPEAR, Bachelor of Science (Science)
 LOUIS WOLFGANG SPORLEIN, Bachelor of Science (Architectural Engineering)
 HAROLD GREENE SPRAGUE, Bachelor of Science (Architecture)
 HERBERT STANLEY LEVIN STAFFORD, Bachelor of Science (Mining Engineering)
 MYRTLE LOIS STAHL, Bachelor of Arts (Liberal Arts)
 LAWRENCE VINCENT STARKEY, Bachelor of Science (Agriculture)
 BERNICE FALLIS STARR, Bachelor of Arts (Liberal Arts)
 CARL GARNER STEARNS, Bachelor of Arts (Liberal Arts)
 LOTTIE EMILY STEELE, Bachelor of Arts (Liberal Arts)
 HUBERT VINCENTZ STEPHENSON, Bachelor of Science (Civil Engineering)
 RAYMOND MONROE STEVENS, Bachelor of Science (Architecture)
 LAVINA SHRIVER STINSON, Bachelor of Arts (Liberal Arts)
 TOM CANDY STONE, Bachelor of Science (Agriculture)
 JUDITH ELSIE STREED, Bachelor of Arts (Liberal Arts)
 HARRY DANFORD STRONG, Bachelor of Science (Agriculture)
 WILLIAM AUGUSTUS STRONG, Bachelor of Arts (Science)
 EMILY KINGMAN SUNDERLAND, Bachelor of Arts (Liberal Arts)

*With thesis.

IZZET BASILE SURVIER, Bachelor of Science (Agriculture)
 EARL RAY SUTER, Bachelor of Science (Electrical Engineering)
 FREDERICK CURTIS SWANSON, Bachelor of Arts (Liberal Arts*)
 LESLIE WELLS SWETT, Bachelor of Science (Mining Engineering)
 FRANK TAGGART, JR., Bachelor of Science (Agriculture)
 ALEXANDER ELI TARRACCIAO, Bachelor of Science (Electrical Engineering)
 JAMES ALFRED TATE, Bachelor of Science (Agriculture)
 MARGARET TAYLOR, Bachelor of Arts (Liberal Arts)
 HENRY RAYMOND TEAR, Bachelor of Science (Electrical Engineering)
 KWANG-TANG TENG, Bachelor of Arts (Liberal Arts)
 JOHN MIFFLIN THOMAS, Bachelor of Science (Mechanical Engineering)
 LYLE THOMAS, Bachelor of Arts (Liberal Arts)
 MELVIN THOMAS, Bachelor of Science (Agriculture)
 CHARLES HENRY THOMPSON, Bachelor of Science (Civil Engineering)
 HAROLD EARLE THOMPSON, Bachelor of Science (Electrical Engineering)
 DOUGLAS DEFORRETT TIBBITS, Bachelor of Science (Agriculture)
 KENNETH DALE TILTON, Bachelor of Science (Mechanical Engineering)
 GEORGE LEINER TITUS, Bachelor of Arts (Liberal Arts)
 EDWARD FRITCHOFF TORGESON, Bachelor of Science (Agriculture)
 HARRY SHULTS TRESSEL, Bachelor of Arts (Liberal Arts)
 LEON ALVIN TRIGGS, Bachelor of Arts (Liberal Arts)
 FRANCES HELEN TROST, Bachelor of Arts (Liberal Arts)
 PHOEBE CAROLINE TUCKER, Bachelor of Arts (Liberal Arts)
 BESSIE IRENE TURNER, Bachelor of Arts (Liberal Arts)
 FRANK TURNER, Bachelor of Science (Agriculture)
 RHODOLPHUS KIBBE TURNER, Bachelor of Science (Agriculture)
 JOHN KLINE TUTHILL, Bachelor of Science (Electrical Engineering)
 MILDRED MAY VAN CLEVE, Bachelor of Arts (Science)
 HENRY PIERCE VANDERCOOK, Bachelor of Science (Agriculture)
 FRANK EUGENE VAN DOREN, Bachelor of Science (Agriculture)
 MARK ALBERT VAN DOREN, Bachelor of Arts (Liberal Arts*)
 CHARLES R. VELZY, Bachelor of Science (Mechanical Engineering)
 ELIZABETH ANN VOSS, Bachelor of Science (Agriculture)
 WINTHROP MADISON WADSWORTH, Bachelor of Science (Architectural Engineering)
 ALVIN LOUIS WAGNER, Bachelor of Arts (Liberal Arts)
 CHARLES LOUIS WALDUCK, Bachelor of Science (Ceramic Engineering*)
 VICTORIA PAMILLA WALKERLY, Bachelor of Arts (Liberal Arts)
 MABEL CLARE WALLACE, Bachelor of Science (Agriculture)
 JESSE NOBLE WALTERS, Bachelor of Science (Agriculture)
 MADGE VIRGINIA WARD, Bachelor of Arts (Liberal Arts)
 VERNON HUFF WARFIELD, Bachelor of Arts (Liberal Arts)
 CHARLES WILLIS WARINER, Bachelor of Science (Mechanical Engineering)
 FRANK BAKER WARREN, Bachelor of Science (Civil Engineering)
 ENOS WATERS, Bachelor of Science (Agriculture)
 PERLEY MELVIN WATSON, Bachelor of Arts (Liberal Arts)
 MILDRED RUTH WAY, Bachelor of Arts (Liberal Arts)
 RAYBURN STOKES WEBB, Bachelor of Science (Architecture)
 ALBERT WEBBER, Bachelor of Arts (Liberal Arts)
 HARRY CLAYTON WEBSTER, Bachelor of Science (Civil Engineering)
 EDWARD ROY WELLS, Bachelor of Science (Civil Engineering)
 WALLACE MOOREHEAD WELTY, Bachelor of Science (Agriculture)
 HENRY AUGUST DEWERFF, Bachelor of Science (Agriculture)
 CLIFFORD HARPER WESTCOTT, Bachelor of Science (Civil Engineering)
 ARTHUR THEODORE WEYDELL, Bachelor of Science (Mechanical Engineering)
 FRANK LEON WHITE, Bachelor of Science (Mechanical Engineering)
 LAURA GWENDOLEN WHITMIRE, Bachelor of Arts (Liberal Arts)
 SARAH JANE WHITTENBERG, Bachelor of Arts (Liberal Arts)
 MINNA LUELLA WICKOFF, Bachelor of Arts (Liberal Arts)
 ANTON HENRY WIERMER, Bachelor of Science (Electrical Engineering)
 RAYMOND HARVEY WILKINS, Bachelor of Science (Agriculture)
 EARL CLINTON WILLIAMS, Bachelor of Science (Electrical Engineering)
 BERNICE CELIA WILSON, Bachelor of Arts (Liberal Arts)
 JAMES AIKEN WILSON, Bachelor of Science (Railway Mechanical Engineering)
 NORMAN KENNETH WILSON, Bachelor of Science (Civil Engineering)
 SAMUEL VICTOR WINQUIST, Bachelor of Arts (Liberal Arts*)
 GEORGE HYDE WITTENBURG, Bachelor of Science (Architecture)
 DEAN PARKHURST WOLEBEN, Bachelor of Science (Civil Engineering)
 CLARENCE JACOB WOLFF, Bachelor of Arts (Liberal Arts)
 JESSE JOHN WOLTMANN, Bachelor of Science (Civil Engineering)
 HARRY GARDNER WOOD, Bachelor of Science (Electrical Engineering)
 JAMES ELLSWORTH WOOTERS, A.M., 1913, Bachelor of Science (Agriculture)
 LELAND MAGNESS WOOTERS, Bachelor of Arts (Liberal Arts)
 GRACE LUCILE WORRELL, Bachelor of Arts (Science)
 BERNICE WRIGHT, Bachelor of Arts (Liberal Arts)
 MINNIE ROBERTA WRIGHT, Bachelor of Arts (Liberal Arts)
 CARL STANLEY WYANT, Bachelor of Science (Architecture)
 BERTHA ALICE WYKLE, Bachelor of Arts (Liberal Arts)
 JOHN JONATHAN YOKE, Bachelor of Science (Agriculture)
 ARTHUR ERWIN YOUNG, A.B. (Northwestern University) 1906, Bachelor of Science (Agriculture)
 JESHINE ZOHNN ZEE, Bachelor of Science (Electrical Engineering)
 EUGENE WILLIAM ZEPPEFELD, Bachelor of Science (Agriculture)

*With thesis.

THE COLLEGE OF LAW

The Degree of Bachelor of Laws

HERBERT FRANKLIN BRANNON
 HOLLAND MULLIKIN CASSIDY
 GEORGE CLEVELAND COFFEY
 ARTHUR VERNON ESSINGTON
 CHANCY LAWRENCE FINPROCK
 BENJAMIN SIDNEY FISHER
 HAROLD JAMES HOWE
 JOSEPH ALFRED HUSTON
 RAYMOND BLAINE KESSLER
 BONUM LEE KIRK
 WILLIAM HAMILTON LEE

WALLACE WILLIS MEILL
 WALTER WITCHELL MERCER
 CARL WESLEY MULFINGER
 STANLEY LANDON POGUE
 FRANK DILLING SHOBE
 FRED MINTON STAMBAUGH
 ROGER LEWIS STEPHENS
 ARTHUR CRIST STRONG
 CLAUDE MAGNUS SWANSON
 GROVER W. WATSON
 JOHN WILSON WHITE

The Degree of Doctor of Law

WILLIAM EVERETT BRITTON, A.M., 1910
 WALTER CHARLES LINDLEY, A.B., 1901, LL.B.,
 1904

THOMAS WALTER SAMUELS, A.B., 1909, A.M.,
 1912

THE LIBRARY SCHOOL

The Degree of Bachelor of Library Science

ELIZABETH HAMILTON DAVIS, A.B., *Illinois Woman's College*, 1909
 STELLA BELLE GALPIN, A.B., *Knox College*, 1911
 LOUISE FENIMORE SCHWARTZ, A.B., *Knox College*, 1907
 ROSE ROBERTS SEARS, A.B., *Fairmount College*, 1909
 SAERA ELIZABETH STEVENS, A.B., *University of Illinois*, 1906

Members of classes from 1872 to 1891 who received certificates on graduation and upon whom is now conferred the Degree of Bachelor of Letters or Bachelor of Science.

ALBERT BELLAMY, Bachelor of Science
 COMMA NATHANIEL BOYD, Bachelor of Science
 WILLIAM BURRON BRAUCHER, Bachelor of
 Science
 LILLY O. BRONSON, Bachelor of Letters
 WILLIAM NICHOLS BUTLER, Bachelor of
 Letters
 ROBERT LIVINGSTON DUNLAP, Bachelor of
 Science
 (MRS.) AUGUSTA BATCHELDER EATON, Bachelor of Letters
 CHARLES WILLIAM FOSTER, Bachelor of
 Science
 FREDERICK FRANCIS, Bachelor of Science
 JUDSON FREEMAN GOING, Bachelor of Letters
 CHARLES WESLEY GROVES, Bachelor of Letters
 (MRS.) SOPHRONIA R. COLE HALL, Bachelor
 of Letters
 (MRS.) NETTIE ELDER HARRIS, Bachelor of
 Letters
 CORA JANE HILL, Bachelor of Letters
 JOSEPH DARWIN HUEY, Bachelor of Science
 NELLIE WAINWRIGHT JILLSON, Bachelor of
 Letters
 EDWARD SPENCER JOHNSON, Bachelor of
 Science
 WILLIAM PITT JOHNSON, Bachelor of Science
 ISABEL ELIZA JONES, Bachelor of Letters
 EDITH LOUISE KIRKPATRICK, Bachelor of
 Letters
 EDWARD FRANCIS LIGARE, Bachelor of Science
 MARY CLUTHA McLELLAN, Bachelor of Letters

WALTER ISHAM MANNY, Bachelor of Letters
 WILLIAM DOUGLAS MOORE, Bachelor of Science
 LOUISA MERBOTH MORGAN, Bachelor of Letters
 JOHN HALE MORSE, Bachelor of Letters
 ARTHUR TAPPAN NORTH, Bachelor of Science
 FOSTER NORTH, Bachelor of Science
 (MRS.) LUCY A HALL PARR, Bachelor of
 Letters
 MARY S LARNED PARSONS, Bachelor of Letters
 U J LINCOLN PEOPLES, Bachelor of Science
 ELON ALBERT PIERCE, Bachelor of Science
 (MRS.) JENNIE C MAHAN PLANK, Bachelor of
 Letters
 HAMLIN WHITMORE SAWYER, Bachelor of
 Letters
 JOSEPH SCHWARTZ, Bachelor of Science
 HOSEA B SPARKS, Bachelor of Letters
 ARTHUR SWANNELL, Bachelor of Letters
 CHARLOTTE SWITZER, Bachelor of Letters
 (MRS.) BESSIE GAY PLANK THOMPSON,
 Bachelor of Letters
 LUTHER THOMPSON, Bachelor of Science
 JOHN GEORGE WADSWORTH, Bachelor of Letters
 (MRS.) ANGELINA GAYMAN WESTON, Bachelor
 of Letters
 (MRS.) ETNA LORAIN BEACH WRIGHT, Bachelor of Letters
 JOHN EDWARDS WRIGHT, Bachelor of Letters
 (MRS.) LAURA MAE BEACH WRIGHT, Bachelor
 of Letters

THE COLLEGE OF MEDICINE

The Degree of Doctor of Medicine and Surgery

Conferred June 11, 1914, in Chicago

FRANK ASHMORE, Bachelor of Science	JAMES JOSEPH LEACH
JOHN PAUL ASHWORTH	ARLINGTON FAY JACOB LECKLIDER
HERNAN JOSEPH ADELMAN	LOUIS JOSEPH AGAPIT LEGRIS
HARRY TOLER BAXTER	OSCAR SIDNEY LENIT
ARTHUR CLARENCE BOEHMER	HARRY LEWINSKY
HARRY ELBERT BOWERS	FRED OSCAR LIEN
MAX WILLIAM BRACHVOGEL	LELAND STANFORD LIGHT
DEAND ROCKHOLD BRENGLE	CHARLES ELDER LINDSAY
CARL KICE BROWN	WILLIAM LOUIS MACCANI
RALPH EMERSON BROWN	HOWARD STEWART MAUPIN
ARTHUR LYNN BRYAN	ANTHONY ARTHUR MEYER
FREDERICK GEORGE CARLS	WILLIAM DRUMMOND MIDDLETON
WILLIAM ERNEST CARNAHAN	WILMONT PAUL MILLER
JAMES GILBERT CARNEY	WILLIAM HENRY MINER
LEE STANLEY CASSELL	MAX MINKER
HARRISON GERALD CHAMPLIN	WILLIAM ALBERT MUDGE
JOSHUA OSCAR COHEN	WALTER EDMUND MUELLER
FRANK LAMONT COLE	FLORENCE EDITH MCCANN
CHARLES CALVIN CONLEY	JUSTIN JOSEPH McDONALD
THOMAS EDWARD CONLEY	EMILE GEORGE NADEAU
FLORENCE VIRGINIA COOPRIDER	GERHARD ALFRED NATVIG
GEORGE WILLIAM CUSICK	FRANK JOHN NOVAK, JR.
ARTHUR LEWIS DAVIS	CLARENCE AMBROSE NYVALL
MARTIN RALPH DEHAAN	WILLIAM ALBERT O'CONNOR
WILLIAM ELIJAH MOORE DEVERS	LOUIS THOMAS O'BRIEN
EMERY HOLMES DU FOUR	HARRY EMERSON PETERS
LAWRENCE DALE DUSCH	ANDREW SAEMAN PFEIFFER
ROSCOE CONKLIN EATON	ALEXANDER HAROLD PHILLIPS
WILLIAM HENRY EVANS	THADDEUS STANLEY PIERZYNSKI
ELLIS BENJAMIN FREILICH	ALBERT EMERSON PUNCHE
NICHOLAS ISRAEL FOX	OTTO BISMARCK RENSCH
ROY EDWARD FOX	HENRY RICHERT
META ELISE FRANKE	FRANCIS ALLEN RICHARDSON, A.B., B.S.
MICHAEL ARCHANGEL GALGANO	WILLIAM JOSEPH RILEY
EDWARD JOHN GOTTIELF, JR.	DOUGLAS FORD ROBBINS, A.B.
ROY GRIFFY	RUSSELL DEAN ROBINSON
STANLEY KNOX HALBERT	HARRY ARTHUR SALZMAN
LEROY HAROLD HARNER	PETER ARTHUR SCHULBERG
REUBEN JOSEPH HARRINGTON	LEON SEIDLER
URBAN BUNYON HARRIS	WALTER EDWARD SIMMONDS
RALPH CHAPEL HARTMAN	NEAL SAMUEL SIMONS
GEORGE NYE HISKEY	FELICIANO C SOMBITO
HARVEY PETER HOFFMANN	JULIUS SPIRO
ROSE SOPHIA HOUDA	WALTER BYRD SWACKHAMER
WILLIAM SAMUEL HOWARD	ELMER MERRILL THOMAS
BARTHOLOMEW EDWARD HUSSEY	ROLLIN DAVID THOMPSON
KANO IKEDA	PAUL SCOVILLE TRAXLER
ANNA ELIZABETH ISHAM	VEZIO OLIVER UKGHERINI
JOHNSTON CHARLES JACKMAN	JOHN ALBERT VAN KIRK
CARL ARTHUR JOHNSON	W CARLTON WARRICK
KENNETH LAWRENCE JOHNSTON	HARVEY EDMUND WEBB
WILHELMINA JACODA JONGEWAARD	CARL GEORGE WENCKE
RICHARD HENRY JUERS, PH.G.	FERDINAND DEMANDER WHITNEY, B.S.
VICTOR VINCENT KELLNER	MILTON ARTHUR WIESE
HENRY WILLIAM KLEINSCHMIT	CLAUDE ERNEST WISEMAN
JOHN MARK LACEY	ERNEST PATRICK WOODWARD
ARTHUR JOHN LANGAN	

THE COLLEGE OF DENTISTRY

The Degree of Doctor of Dental Surgery

Conferred May 29, 1914, in Chicago

NATHAN WILLIAM BLUM	ALBERT SAMUEL JACK
CLARENCE HERMAN CASS	CHARLES SHY KAHN
GEORGE WILLIAM CISAR	JACOB HYMAN KAPLAN
WILLIAM EDWARD COVERLEY	EDWARD FRANK KOETTERS
PHILIP ISRAEL DOKTORSKY	GEORGE HEZEKIAH MITCHELL, R.Ph.
JOSEPH SABAS GORMAN	GEORGE CHARLES MOLDT
ROY ANDREW HEIMER	JOHN JOSEPH PLACHOTA
LESLIE DENIS HINCH	CHARLES LESLIE PUFFER
SIDNEY TRENHOLME HOOD	CLARENCE JOHN SAUER

WILLIAM GEORGE SHAY
EDWARD WILLIAM SCHLIES
CORWIN J. SIMMONS
MILAN DEMITR STEVENS
HERBERT FLOWER STEVENS
MICHAEL VINCENT STEVENS

HERBERT WILLIAM TAYLOR
TEICHE TOMITA
LEIF NORMAN TOMMERSON
FRANK JOSEPH TWOHEY
ELLERY VERGIL UMBENHAUR
EDWIN CYRUS ZAJICEK

THE SCHOOL OF PHARMACY

The Degree of Graduate in Pharmacy

Conferred April 22, 1914, in Chicago

ALBERT FRANKLIN ANDERSON
EDNA BECKER
AUGUST CHRISTOPHER BOSCHI
J. BURDETTE BROWN
FLOYDE WILEY BRYANT
GEORGE ERNEST CANHAM
LAWRENCE CONVERSE
WALTER ARTHUR ENDEE
OSCAR FISLER
JEREMIAH G. GARRITY
HARRY EDWARD HAINES
PHILIP IRVING HILDEBRANDT
ELWOOD JAY HOLLINSHEAD
HARRY E. JOHNSON
JONATHAN G. JORDAN
ELMER CHESTER LANE

PAUL ISRAEL MENDELSON
RICHARD WILLIAM MERSCHAT
ABRAHAM MYERSON
CHARLES CLARENCE ORR
IRVING FITCH PEARCE
ELMER EDWARD RUECKERT
HAROLD SCHMID
RALPH HAROLD THOMPSON
ADRIAN TON
OLJO VAVRA
LADISLAUS JOSEPH WARZYNSKI
ALBERT JOUN COOK (Class of 1913)
WILLIAM ALEXANDER LEE (Class of 1913)
ALVA WALTER RACKAWAY (Class of 1913)
CHARLES EDWARD WACH (Class of 1913)
MARY LEINBAUGH SMITH (Class of 1909)

The Degree of Pharmaceutical Chemist

Conferred June 5, 1914, in Chicago

PAUL WRIGHT EDGETT
GENARRO DOMINIC LAVIERI
ALBERT SCHREINER, JR.

GEORGE STULIK
GEORGE FREDERICK VAUPELL
EDGAR PHILIP HEIDREDER (Class of 1913)

THE GRADUATE SCHOOL

Degrees of Master of Arts and Master of Science

Conferred June 17, 1914

CHESTER HARMON ALLEN, A.B.
(*Lawrence College*) 1912
Master of Arts (Chemistry)
DEMETRIUS DON ANDRONESEU
(*Roumanian College of Agriculture*)
Master of Science (Agronomy)
ISABELLA ANDERSON, A.B., 1913
Master of Arts (Classics)
ALICE LOUISE AUSTIN, A.B.
(*Monmouth College*) 1910
Master of Arts (Classics)
ROBERT EARL BAKER, A.B.
(*University of Oklahoma*) 1912
Master of Arts (Chemistry)
WILLIAM HARRY BAIR, B.S.
(*Ohio Northern University*) 1908
Master of Science (Physics)
THEODORE ROLLY BALL, B.S.
(*Drake University*) 1908
Master of Science (Chemistry)
OREN AUGUSTUS BARR, B.Ed.
(*Illinois State Normal University*) 1913
Master of Arts (History)
PAUL LEVERN BAYLEY, A.B.
(*University of Arkansas*) 1913
Master of Arts (Physics)
GEORGE PAUL BOOMSLITER, B.S.
(*Michigan Agricultural College*) 1906
Master of Science (Civil Engineering)

ST. ELMO BRADY, A.B.
(*Fisk University*) 1908
Master of Arts (Chemistry)
REED OSHEA BRIGHAM, B.S.
(*Ohio State University*) 1912
Master of Science (Botany)
LOIS ADELINE BROWN, A.B.
(*James Millikin University*) 1912
Master of Arts (English)
LILLIAN BLAYNEY, A.B.
(*Monmouth College*) 1913
Master of Arts (History)
ALEXANDER RUDOLPH BRANDNER, B.S., 1913
Master of Arts (Architecture)
LAWRENCE VREELAND BURTON, B.S., 1911
Master of Science (Chemistry)
JOHANNES PETRUS DU BUISSON, A.B., 1913
Master of Arts (Agronomy)
OMAR CASWELL, A.B.
(*Indiana University*) 1913
Master of Arts (Education)
LOIS MIRIAM COULTAS, A.B.
(*Illinois Woman's College*) 1913
Master of Arts (German)
JAMES PERRY COYLE, A.B.
(*Lake Forest College*) 1910
Master of Arts (Physics)
HELEN ISABEL CUSHING, A.B.
(*Lake Forest College*) 1913
Master of Arts (Philosophy)

- BERT STOVER DAVISSON, A.B.
(*Indiana University*) 1911
Master of Arts (Chemistry)
- PRENTICE HOOVER DEFENDALL, A.B.
(*De Pauw University*) 1906
Master of Arts (English)
- IDA BELLE DEWEY, A.B.
(*Rockford College*) 1913
Master of Arts (Mathematics)
- EDGAR WALLACE ENGLE, B.S.
(*Drury College*) 1912
Master of Science (Chemistry)
- DUANE TAYLOR ENGLIS, A.B.
(*Eureka College*) 1913
Master of Arts (Chemistry)
- ERNEST CARROLL FAUST, A.B.
(*Oberlin College*) 1912
Master of Arts (Zoology)
- LEWIS NEBINGER FISHER, B.S., 1910
Master of Science (Theoretical and Applied Mechanics)
- MILETUS LAFAYETTE FLANINGAM, B.S.
(*Northwestern University*) 1904
Master of Arts (Education)
- FRANK LESLIE FLEENER, A.B.
(*Denison University*) 1912
Master of Arts (Geology)
- LAWRENCE FLEMING FOSTER, A.B.
(*Albion College*) 1910
Master of Science (Chemistry)
- JOHN JOSEPH GARDNER, B.S.
(*Massachusetts Agricultural College*) 1905
B.S. (*Boston University*) 1912
Master of Science (Horticulture)
- PHILIP GARMAN, B.S.
(*Kentucky State University*) 1913
Master of Science (Entomology)
- ELIZABETH MAE GITTINS, S.B.
(*Drake University*) 1909
Master of Science (Zoology)
- MARY JANE GOURLEY, A.B., 1909
Master of Arts (Zoology)
- ALOIA ALICE HASKETT, A.B.
(*Illinois Wesleyan University*) 1913
Master of Arts (Classics)
- CLARENCE MARK HEBBERT, B.S.
(*Otterbein University*) 1911
Master of Science (Mathematics)
- ARCHIE OLIVER HECK, B.S.
(*Hedding College*) 1913
Master of Science (Mathematics)
- GEORGE WILLIAM HEITKAMP, A.B.
(*University of Wisconsin*) 1912
Master of Arts (Geology)
- RAY WASHINGTON HESS, A.B.
(*Morningside College*) 1912
Master of Arts (Chemistry)
- CHARLES KAY HEWES, B.S., 1912
Master of Science (Chemistry)
- MILFORD EVERETT HINDS, B.S.
(*Northwestern University*) 1912
Master of Science (Chemistry)
- CLYDE WHITTAKER HUDELSON, B.S., 1913
Master of Science (Animal Husbandry)
- ANNA LEO HULL, A.B., 1910
Master of Arts (History)
- NOBTARO INAGAKI
Master of Arts (Economics)
- NELLE LOUISE INGELS, Ph.B.
(*Greenville College*) 1911
Master of Arts (Mathematics)
- MORRIS JOHNSON KERNALL, A.B.
(*University of North Dakota*) 1906
Master of Arts (Zoology)
- JESSIE JUNE KILE, A.B.
(*Rockford College*) 1912
Master of Arts (History)
- VIOLA EMMA KNOCH, A.B.
(*Northwestern College*) 1913
Master of Arts (German)
- BURLEY FRANK LAMB, A.B.
(*Albion College*) 1913
Master of Arts (Economics)
- ERNEST MICHAEL RUDOLPH LAMKEY, A.B., 1913
Master of Arts (Botany)
- MARTHA SERENA LARSON, A.B., 1910
Master of Arts (Classics)
- WARREN LINCOLN, B.S.A.
(*Washington State College*) 1913
Master of Science (Animal Husbandry)
- EDWARD LAWRENCE MCKENNA, A.B.
(*Columbia University*) 1913
Master of Arts (Economics)
- MATTHEW LAWRENCE, A.B.
(*Shurtleff College*) 1913
Master of Arts (History)
- EDWARD LOTAN LAWSON, A.B., Ph.B.
(*Union Christian College*) 1901, 1902
Master of Arts (Education)
- RALPH HARLAN LINKINS, A.B.
(*Illinois College*) 1911
Master of Arts (Zoology)
- GEORGE ALFRED MANEY, C.E.
(*University of Minnesota*) 1911
Master of Science (Theoretical and Applied Mechanics)
- HOWARD MATHEWS, B.S., 1913
Master of Science (Electrical Engineering)
- RUDOLPH MACDERMET, B.S., 1912
Master of Science (Electrical Engineering)
- LOIS MAIA MILES, A.B., 1910
Master of Arts (Classics)
- JESSIE FAY MILLER, A.B., 1913
Master of Arts (Chemistry)
- FLOYD WILLIAM MOHLMAN, B.S., 1912
Master of Science (Chemistry)
- FRANCES MILTON MOREHOUSE, A.B., 1910
Master of Arts (History)
- ALICE ELVIRA MORRIS, A.B., 1913
Master of Arts (Education)
- DORA MYRTLE NEBEL
Master of Arts (Mathematics)
- CHARLES IVAN NEWLIN, B.S., 1912
Master of Science (Animal Husbandry)
- GERTRUDE NEIDERMAN, B.S., 1908
Master of Science (Chemistry)
- KARR PARKER, B.S.
(*Carthage College*) 1913
Master of Science (Chemistry)
- NEWTON LYMAN PARTRIDGE, B.S., 1913
Master of Science (Entomology)
- DANIEL FREDERICK PASTORE, A.B.
(*Albion College*) 1913
Master of Arts (German)
- WINIFRED ALMINA PERRY, A.B., 1908
Master of Arts (English)
- SAMUEL HAWKINS RAY, B.S., 1913
Master of Arts (Animal Husbandry)
- HARRY PAYNE REEVES, A.B., 1913
Master of Arts (Romance Language)
- AMANDA BARBARA RENICH, A.B., 1911
Master of Arts (History)
- KATHARINE LOUISE RENICH, A.B., 1911
Master of Arts (History)
- ANNA SOPHIE ROGERS, A.B., 1911
Master of Arts (Classics)
- E. RANDALL SAYRE, A.B., A.M.
(*McKendree College*) 1909-1910
Master of Arts (History)
- SAMUEL HAWTHORNE SCHERFEE, A.B.
(*Leland Stanford Junior University*) 1909
Master of Arts (Botany)
- OTTO PAUL SCHINNERER, A.B., 1913
Master of Arts (German)
- CLARENCE SCHOLL, B.S., 1913
Master of Science (Chemistry)
- EARL WOODDELL SHEETS, B.S.
(*West Virginia University*) 1912
Master of Science (Animal Husbandry)
- WALTER ANDREW SHEWHART, A.B., 1913
Master of Arts (Physics)
- THEKLA MARIA SIEBENS, A.B.
(*James Milliken University*) 1911
Master of Arts (German)

- EDWIN ROLLIN SPENCER, A.B., 1911
Master of Arts (Education)
- WAYNE EDSON STEVENS, A.B.
(*Knox College*) 1913
Master of Arts (History)
- LIONEL STEVENSON, B.S.
(*University of Toronto*) 1912
Master of Science (Animal Husbandry)
- CLAUDE NEWTON STOKES, A.B.
(*McKendree College*) 1913
Master of Arts (Mathematics)
- HORACE WESLEY STUNKARD, B.S.
(*Coe College*) 1912
Master of Arts (Zoology)
- WARD WILLIAM SULLIVAN, A.B., 1911
Master of Arts (History)
- EMERSON GRANT SUTCLIFFE, A.B.
(*Howard University*) 1911
Master of Arts (English)
- GEORGE FRED SUTHERLAND, A.B., 1913
Master of Arts (Zoology)
- STEFAN FUGTA TONADE, B.S.
(*Knox College*) 1911.
Master of Science (Physics)
- FRED WILBUR TANNER, B.S.
(*Wesleyan University*) 1912
Master of Science (Chemistry)
- MARGARET KATHERINE THEILEN, A.B., 1913
Master of Arts (History)
- HOWARD RICE THOMAS, C.E.
(*University of Texas*) 1912
Master of Science (Theoretical and Applied Mechanics)
- EDNA AMELIA THOREEN, A.B.
(*Lombard College*) 1911
Master of Arts (German)
- MABEL ELIZABETH THORNE, A.B., 1913
Master of Arts (Mathematics)
- LOUIS ARTHUR TOHILL, A.B., 1912
Master of Arts (History)
- HARRY DWIGHT WAGGONER, A.B., 1909
Master of Arts (Botany)
- EARLE HORACE WARNER, A.B.
(*University of Denver*) 1912
Master of Arts (Physics)
- ALLEN SAGE WILBER, A.B.
(*University of Kansas*) 1913
Master of Arts (Political Science)
- ERNEST ATKINS WILDMAN, B.S.
(*Earlham College*) 1912
Master of Science (Chemistry)
- JOHN FREDERICK WILEY, Ph.B.
(*De Pauw College*) 1902
Master of Arts (Education)
- WILLIAM HAROLD WILSON, A.B.
(*Albion College*) 1913
Master of Arts (Mathematics)
- HERMAN CARL WOLF, B.S., 1913
Master of Science (Electrical Engineering)
- WILLIAM SIDNEY WOLFE, B.S., 1913
Master of Science (Architectural Engineering)
- MARY EASTMAN WOODIN, B.S.
(*Wellesley College*) 1890
Master of Arts (Classics)
- ALBERT BYARD WRIGHT, B.S., A.M.
(*Illinois Wesleyan University*) 1907, 1910
Master of Arts (Political Science)
- WILLIAM WODIN YAPP, B.S., 1911
Master of Science (Dairy Husbandry)
- YUNGYEN YOUNG, B.S., 1913
Master of Science (Agronomy)

Professional Degrees in Engineering

Conferred June 17, 1914

- HENRY JACKSON BURT, B.S., 1896, Civil Engineer
- JOSEPH FERDINAND CHINLUND, B.S., 1910, Electrical Engineer
- CHARLES RICHARD CLARK, B. S., 1898, Master of Architecture
- WILLIAM ALONSO ETHERTON, B.S., 1904, Master of Architecture
- IRA WILLIAM FISK, B.S., M.S., 1909, 1913, Electrical Engineer
- JOSEPH NORMAN JENSEN, B.S., 1906, Civil Engineer
- ALBERT JAMES SCHAFMAYER, B.S., 1907, Civil Engineer
- FRED DRINKWATER YEATON, B.S., 1907, Civil Engineer

Degree of Doctor of Philosophy

Conferred June 17, 1914

- MIKISHI ABE, B.E. (*Tohoku Imperial University*) 1905 (Engineering)
Thesis: Statically Indeterminate Stresses in Rigidly Connected Structures of Reinforced Concrete.
- WILLIAM ERNEST CARROLL, B.S. (*Utah Agricultural College*) 1909; M.S., 1911 (Animal Husbandry)
Thesis: Effect of the Amount of Protein Consumed Upon Digestion and Protein Metabolism in Lambs and Upon the Composition of Their Flesh and Blood
- WILLIAM WALTER CORT, A.B. (*Colorado College*) 1909; A.M., 1911, Ph.D. (Zoology)
Thesis: Larval Trematodes From the North American Fresh-Water soils
- STANLEY PRINCE FARWELL, B.S., M.S., 1907, 1910 (Engineering)
Thesis: The Corona Produced by Continuous Potentials
- STANLEY BLACK FRACKER, A.B. (*Buena Vista College*) 1910; M.S. (*Iowa State College*) 1912 (Entomology)
Thesis: The Classification of Lepidopterous Larvae
- DENTON LORING GEYER, A.B., A.M. (*University of Wisconsin*) 1910, 1911 (Philosophy)
Thesis: The Pragmatic Theory of Truth as Developed by Peirce, James, and Dewey.
- JOHN EARL GUTBERLET, A.B. (*Bethany College*) 1909, A.M., 1911 (Zoology)
Thesis: On the Development, Morphology and Economic Importance of Chicken Cestodes
- HARRY FIELDING HADLEY, A.B. (*James Millikin University*) 1911; A.M., 1912 (Chemistry)
Thesis: Phenol Extraction Methods as Applied to Coal and a Study of the Resulting Compounds
- EDWARD OTTO HEUSE, B.S. (*Hanover College*) 1900; M.S., 1907 (Chemistry)
Thesis: The Vapor Pressures of Aqueous Solutions of Electrolytes

- FELIX EMIL HELD, A.B., A.M. (*Emporia College*) 1902, 1908 (German)
Thesis: Johann Valentin Andreae's Christianopolis, A Utopia of the Seventeenth Century
- EDWARD AUGUST THEODORE KIRCHER, A.B., A.M., 1911, 1912 (Mathematics)
Thesis: Group Properties of the Residue Classes of Certain Kronecker Modular Systems and Some Related Generalizations in Number Theory
- PHILIP AUGUSTUS LEHENBAUER, A.B. (*Westminster College*) 1907; A.M. (*James Millikin University*) 1909 (Botany)
Thesis: Growth in Relation to Temperature
- INGEBRIGT, LILLEHEI, A.B., A.M. (*University of Minnesota*) 1908, 1909 (Scandinavian Languages and Literature)
Thesis: A Study of the Language and the Main Ideas of Arne Garborg's Works
- LOUIS CLARK MATHEWSON, A.B., A.M. (*Albion College*) 1910, 1911; A.M., 1912 (Mathematics)
Thesis: Theorems on the Groups of Isomorphisms of Certain Groups
- HAROLD HOSSACK MCGREGOR, A.B. (*McMaster University*) 1910; M.S. (*University of Louisville*) 1912 (Chemistry)
Thesis: The Proteins of the Central Nervous System
- EARL BOWMAN MILLARD, A.B. (*University of Colorado*) 1910; A.M. (*University of Wisconsin*) 1911 (Chemistry)
Thesis: The Hydration of Ions and the Influence of Viscosity on the Transference Number of Lithium Chloride
- HUBERT LEONARD OLIN, A.B. (*University of Iowa*) 1908; M.S., 1911 (Chemistry)
Thesis: The Coking of Coal at Low Temperatures, With Special Reference to the Properties and the Composition of the Products
- GEORGE WALLACE SEARS, B.S. (*Drury College*) 1908; M.S., 1911 (Chemistry)
Thesis: Atomic Weight of Tantalum
- GLENN ALFRED SHOOK, A.B. (*University of Wisconsin*) 1907 (Physics)
Thesis: A Determination of the Sun's Temperature
- ORRIN HAROLD SMITH, A.B. (*Knox College*) 1908; A.M., 1909 (Physics)
Thesis: Retrograde Rays From the Cold Cathode
- MARTIN WILLIAM STEINKE, A.B. (*Wartburg College*) 1908; A.M. (*University of Washington*) 1910 (German)
Thesis: Edward Young's "Conjectures on Original Composition" in England and Germany
- JOHN HAMILTON WHITTEN, A.B., A.M., 1911, 1912 (Botany)
Thesis: The Effect of Kerosene and Other Petroleum Oils on the Viability and Growth of Zea Mays

FELLOWS AND SCHOLARS IN THE GRADUATE SCHOOL

1914-15

WILLIAM ALBERT ALBRECHT, Scholar in Agronomy (*Nominee of the College of Agriculture*)
 ALBERT BARRIT, Scholar in Mathematics
 GERTRUDE AULD BACON, Scholar in Entomology
 JULIA MINETTA BARBER, Scholar in English
 MARY LAVENIA BECK, Scholar in English
 JEFFERSON HALL BELT, Research Fellow in Electrical Engineering (Engineering Experiment Station)
 ST. ELMO BRADY, Fellow in Organic Chemistry
 HENRY ALFRED BURD, Fellow in English
 HELEN CLARK, Fellow in Psychology
 KARL ADOLF CLARK, Fellow in Chemistry
 ESTHER MARGARET COLVIN, Scholar in English
 DELMAR GROSS COOKE, Scholar in English
 SYLVAN JAY CROOKER, Scholar in Physics
 FLOY FENTON CUTLER, Scholar in German (*Nominee of Hedding College*)
 NIELS HENRIKSEN DEBEL, Fellow in Political Science
 EDWARD ADELBERT DOISY, Fellow in Physiological Chemistry
 JASPER OWEN DRAFFIN, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)
 WILLIAM ARTHUR DUNHAM, Scholar in Political Science
 ERMA LYTLE ELLIOTT, Scholar in Mathematics (*Nominee of Illinois Woman's College*)
 JOHN ASBURY ELLIOTT, Fellow in Plant Pathology
 EMERY C FARVER, Scholar in Mathematics
 CHARLES STEVER FAZEL, Scholar in Physics
 FAY LYNTON FISHER, Scholar in German (*Nominee of James Millikin University*)
 PHILIP GARMAN, Fellow in Entomology
 WALTER ARTHUR GATWARD, Fellow in Electrical Engineering (Engineering Experiment Station)
 CLARE ELMER GRIFFIN, Scholar in Economics
 CLYDE CARNEY HAMILTON, Scholar in Entomology
 FRANK BLAIR HANSON, Fellow in Zoology
 OSCAR EDWARD HARDER, Fellow in Industrial Chemistry
 RUTH MARIE HEFFERMAN, Scholar in English (*Nominee of Illinois Wesleyan University*)
 ROBERT WALTER HENDEL, Jr., Scholar in Chemistry (*Nominee of Lombard College*)
 CHARLES ELMER HOLLEY, Fellow in Education
 JOSEPH WHITNEY HOWARD, Fellow in Chemistry
 ARLANDUS LEON JERDAN, Scholar in Animal Husbandry
 MINNA ERNESTINE JEWELL, Scholar in Zoology
 MORRIS JOHNSON KERNALL, Fellow in Zoology
 JAMES ERNEST KINDRED, Scholar in Zoology
 JOHN EMMETT KIRSHMAN, Fellow in Economics
 BURLEY FRANK LAMB, Fellow in Economics
 THOMAS ERNEST LAYNG, Fellow in Industrial Chemistry
 HARRY FLETCHER LEWIS, Fellow in Analytical Organic Chemistry
 LESTER CLYDE LICHTY, Research Fellow in Mechanical Engineering (Engineering Experiment Station)
 WILLIAM PENN LUKENS, Research Fellow in Mechanical Engineering (Engineering Experiment Station)
 WALLACE MACFARLANE, Fellow in Agronomy
 ALICE MEIER, Scholar in German
 MARIE BREESE MILLER, Scholar in Household Science
 JULIAN MONTGOMERY, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)
 EDNA MOSHER, Fellow in Entomology
 ODESSA MADGE MYERS, Scholar in Classics
 MERLE LOUIS NEREL, Research Fellow in Mining Engineering (Engineering Experiment Station)
 ANNA GRACE NEWELL, Fellow in Entomology
 RUTH ELIZA OKEY, Scholar in Chemistry (*Nominee of Monmouth College*)
 RAYMOND WILLIAM OWENS, Scholar in Electrical Engineering (*Nominee of the College of Engineering*)
 FRANKLIN CHARLES PALM, Scholar in History
 DANIEL FREDERICK PASMORE, Fellow in German
 LESLIE ARTHUR PINKNEY, Scholar in Physics
 ROBERT BEDFORD POGUE, Research Fellow in Railway Engineering (Engineering Experiment Station)
 ERNEST ALEXANDER REID, Scholar in Electrical Engineering

FRANK ERWIN RICHART, Scholar in Civil Engineering
 ROBBINS RUSSEL, Scholar in Chemistry (*Nominee of Illinois College*)
 GEORGE RUTLEDGE, Fellow in Mathematics
 ETHEL ERNESTINE SABIN, Fellow in Philosophy
 CLARENCE SCHOLL, Fellow in Sanitary Chemistry
 CHARLES TIMOTHY SENAY, Fellow in Zoology
 WAYNE EDSON STEVENS, Fellow in History
 CHARLES LESLIE STEWART, Fellow in Economics
 FLOYD BENJAMIN STREETER, Fellow in History
 HORACE WESLEY STUNKARD, Fellow in Zoology
 FREDERICK CURTIS SWANSON, Scholar in History
 HENRY DANIEL TERKEURST, Scholar in Education
 RAYMER WENDELL TINSLEY, Scholar in German
 ROBERT EDGAR TURLEY, Research Fellow in Theoretical and Applied Mechanics (Engineering Experiment Station)
 MARK ALBERT VANDOREN, Scholar in English
 GORDON WATKINS, Scholar in Sociology
 MINNIE ELIZABETH WATSON, Fellow in Zoology
 MORRIS MILLER WELLS, Fellow in Zoology
 LEILA OLIVE WHITE, Scholar in History (*Nominee of Rockford College*)
 KATHRYN WILLIAMS, Scholar in Classics (*Nominee of Carthage College*)
 HERBERT AUGUST WINKELMAN, Scholar in Chemistry (*Nominee of North-Western College*)
 ESTHER GRACE WISEMAN, Scholar in English (*Nominee of Shurtleff College*)
 PHILIP QUINCY WRIGHT, Fellow in Political Science
 FRANK ARCHIBALD WYATT, Fellow in Agronomy
 ESTHER YOUNG, Scholar in Botany
 EVERETT GILLHAM YOUNG, Research Fellow in Railway Engineering (Engineering Experiment Station)
 LEWIS EMANUEL YOUNG, Fellow in Economics

THE FRANCIS JOHN PLYM FELLOWSHIP IN ARCHITECTURE

CHARLES BABCOCK MCGREW, 1913

UNIVERSITY HONORS

1913-14

Awarded by the Faculty of the University for Scholarship

HONORS AT COMMENCEMENT
(June, 1914)

COLLEGE OF LIBERAL ARTS AND SCIENCES

The Degree of A. B. with Honors

NUEL DINSMORE BELNAP, in History
MARSHALL CRITTENDEN MERRILLS, in History
ODESSA MADGE MYERS, in Latin
FREDERICK CURTIS SWANSON, in History
MARK ALBERT VANDOREN, in English

Final Honors

(Courses of the former College of Science)

HELEN BELL COMSTOCK	LEWIS S LINDER
EDWARD ADELBERT DOISY	INA VALERIA MEREDITH
CARRIE BELLE HERDMAN	ANTON PRASIL
CHARLES FRANCIS HILL	HELEN MARIE RICHARDS
ESTHER ALLEN KERN	EMILY KINGMAN SUNDERLAND
FRANK ALLEN KIRKPATRICK	MILDRED MAY VAN CLEVE

Special Honors

HOWARD CLINTON ARNOLD, in Ceramics
EDWARD ADELBERT DOISY, in Chemistry
HUBERT MORTON ENGLISH, in Chemistry
FRANK ALLEN KIRKPATRICK, in Ceramic Engineering
ANTON PRASIL, in Chemistry
PAUL COBB RICH, in Chemistry

COLLEGE OF ENGINEERING

Final Honors

ARTHUR HILDEMAN AAGARD	GEORGE EDWARD QUICK
JOSEPH MANDEL BRANDSTETTER	ERNEST ALEXANDER REID
FRANCIS HENRI BULOT	FRANK ERWIN RICHART
RALPH BURKE	DAVID MORRIS RIFF
JOHN CUTLER	FRANK THOMAS SHEETS
ARMIN ELMENDORF	WILLIAM DAVIS SHIPMAN
ELIJAH ROBERT HATOWSKI	HUBERT VINCENZ STEPHENSON
WALLACE BRIGHT LIVESAY	HENRY RAYMOND TEAR
ELMER MCCORMICK	HAROLD EARLE THOMPSON
GEORGE MEYER, JR.	CLIFFORD HARPER WESTCOTT
RAYMOND WILLIAM OWENS	CARL STANLEY WYANT

Special Honors

ARMIN ELMENDORF	HUBERT VINCENZ STEPHENSON
ELIJAH ROBERT HATOWSKI	HENRY RAYMOND TEAR
RAYMOND WILLIAM OWENS	CLIFFORD HARPER WESTCOTT
FRANK THOMAS SHEETS	

COLLEGE OF AGRICULTURE

Final Honors

EARL KIRKWOOD AUGUSTUS	ROY JACOB LYONS
GEORGE STANLEY BEAUMONT	CATHARINE MELVINA PLANCK
FREDERICK JACKSON BLACKBURN	GLENN WILSON SCHROEDER
RALPH LEE EYMAN	IZZET BASILI SURYICH
ORA FRENCH FOSTER	HENRY PEIRCE VANDERCOOK
WILFRED ESPIN JOHNS	JAMES ALFRED TATE

COLLEGE OF LAW

Final Honors

WILLIAM HAMILTON LEE

STANLEY LONDON FOGUE

LIBRARY SCHOOL

Final Honors

SABRA ELIZABETH STEVENS

PRELIMINARY HONORS

(October, 1914)

College of Liberal Arts and Sciences

WALTER EARL BAKER
OTIS AVERY BARNES
NELLIE FLORA BARTELS
HARRIET THOMPSON BARTO
ZILPHA CURTIS BATTEY
EDWIN C OBEKT BEATTY
ELLA BURNS
DONALD THOMPSON CARLISLE
HILDA MARION CROLL
BESS EAST
HELEN VASTINE FISHER
NELLIE COREY FORD

FRED CHARLES HAHN
ELMO PAUL HOHMAN
DORIS JEAN HOLLOWAY
SIDNEY DALE KIRKPATRICK
KATE LACKEY
LEO GAY MCAFEE
RUSSELL WARD MILLAR
ADOLPH FREDERICK PAULI
MAIDA JANE PHOENIX
KENNETH DWIGHT ROSS
WALTER JOSEPH TILTON
GERTRUDE T WEBER

College of Engineering

LEWIS MICHAEL BECKER
CLARENCE LOUIS BENZ
THOMAS HENRY BURRELL
ERNEST WILLIAMS COBB
CLARENCE TODD GRANT
ARTHUR HAGENER
EUGENE CARL HAMILL
JOHN HAROLD HEINDEL
ARNOLD CARL HOLINGER
CHARLES HAROLD JACKMAN
CARSON GARY JENNINGS
MAURICE CARL JOHNSON
CHARLES GORR KLOPP
LEROY WILLIAM LEDGERWOOD
ANDREW HENRY LENZ

JOSEPH MOORE McKEON
C. SEDGWICK MOSS
OLIVER JOHN NESLAGE
WILLIAM LOVE PARISH
ERIC FREDERICK PIHLGARD
GEORGE W RENWICK
ALBERT WILLIAM ROBINSON
LOUIS JOHN RUST
JAMES CREAR STITTON
HARRY FREDERICK STOCKER
ALBERT GETTEN STONE
RALPH RAYMOND THOMAS
FLOYD ELSWORTH TROXEL
SEIGFRIED NATHANIEL VIBELIUS
ARTHUR CHARLES ZIMMERMANN

College of Agriculture

EDWIN ADAMS BEBB
FORREST BEBB
EDWARD STEVENSON BLOCK
GEORGE CURTISS
BERTHIER WESLEY FAIRBANKS
LOUIS JACOB GREENGARD
HUGH GRIGSBY
LAURA EDNA HIRTH
CHARLES LEO JEZ
ALEXANDER PAUL MACDONALD, JR.

ALVA ELISHA MCCOY
JOHN TURNER MILLS
WALTER LOUIS ROHLFING
RAYMOND STANLEY SCHOLL
ARTHUR TRUMAN SEMPLE
CLAIR JOEL THOMAS
ALEXANDER HARVEY TURNER
JOHN WESLEY WATSON
ROBERT NICHOLAS WILFORD

College of Law

ELLIOTT BILLMAN
FRED HANFORD KELLY

FRANK CLIFTON SLATER
JOHN WILLIAM FREELS

School of Music

STELLA PERCIVAL

PRIZES

B'nai B'rith Prize

(Freshman Prize)

JULIUS COHEN

Llewellyn Prizes in Architectural Engineering

MYRLIN STERN FALLIS
SAMUEL JAMES FARLOW

EUGENE FRANKLIN ADAMS

Phi Beta Kappa Prize

MARK ALBERT VANDOREN

MILITARY HONORS

COMMISSIONS AS BREVET CAPTAINS, ILLINOIS NATIONAL GUARD, ISSUED BY THE GOVERNOR IN 1914

CLIFFORD HARPER WESTCOTT
EDWIN C PROUTY
HERBERT EDWARD HOWES
HAROLD PAUL OUSLEY
PAUL COBB RICH
CHARLES R VELZY
EDWARDS HALL BERRY
FREDERICK JOHN GIEHLER
EARL KIRKWOOD AUGUSTUS
FLOYD BERGLAND
E L HASKER
E A DOISY
HARRY O DANZ
WALTER JOHN BUBLITZ
HARRY E CODLIN
PIERCE VANDERCOOK
HARRIE S MUELLER

HARRY GARDNER WOOD
WARREN EDWARD BOW
GEORGE MEYER, JR.
EDMUND R FOSTER
LESLIE W FAULKNER
C PAUL FLETCHER
HARRY C WEBSTER
DAVID M RIFF
WALTER JOSEPH BLUM
CHARLES HENRY THOMPSON
JULIUS C PALMER
ARTHUR H AAGARD
ARTHUR W BAUMGARTEN
WILLIAM D SHIPMAN
PHILIP BUCK
ORA FRENCH FOSTER

REPORTED TO THE ADJUTANT GENERAL, UNITED STATES ARMY, AS DISTINGUISHED CADETS

EARL KIRKWOOD AUGUSTUS
WALTER JOHN BUBLITZ
HARRY O DANZ
WARREN EDWARD BOW
LESLIE W FAULKNER
EDMUND R FOSTER
E L HASKER
HERBERT EDWARD HOWES
GEORGE MEYER, JR.

HARRIE S MUELLER
HAROLD PAUL OUSLEY
EDWIN C PROUTY
PAUL COBB RICH
DAVID M RIFF
CHARLES R VELZY
HARRY C WEBSTER
CLIFFORD HARPER WESTCOTT
HARRY GARDNER WOOD

ROSTER OF OFFICERS AND NON-COMMISSIONED OFFICERS OF THE UNIVERSITY CORPS OF CADETS, 1914-15 FIRST REGIMENT

Colonel.....	J. N. Greene
Captain and Adjutant.....	J. C. Hostetler
Captain and Quartermaster.....	R. L. Herman
Captain and Commissary.....	G. D. Stopp
Regimental Sergeant Major.....	F. R. Babcock
Regimental Quartermaster Sergeant.....	J. C. Knoche
Regimental Commissary Sergeant.....	A. M. Adams
Regimental Color Sergeant.....	M. R. Finley

First Battalion

Major.....	E. C. Elles
First Lieutenant and Adjutant.....	E. A. Smith
Second Lieutenant and Quartermaster.....	B. P. Reinsch
Sergeant Major.....	J. H. Needler

Company A

Captain,	L. H. Dunham
1st Lieutenant,	J. A. Chase
2nd Lieutenant,	W. P. Beaubien
1st Sergeant,	L. H. Gift
Q. M. Sergeant,	C. W. Borton

Company B

Captain,	B. H. Decker
1st Lieutenant,	E. Shelby
2nd Lieutenant,	K. Bell
1st Sergeant,	W. O. Nelson
Q. M. Sergeant,	G. F. Cadisch

Company A
Sergeants, Leon Adler
C. L. Albee
R. Fischer
A. F. Meyer
E. C. Runneberg
L. W. Woltman
J. N. Johnson
F. R. Cattell
Corporals, L. N. Bailey
H. A. Branan
R. G. Heeschen
R. L. Swindler
E. E. Eleson
H. W. McCoy
E. H. Stevenson

Company C
Captain, E. R. P. Rall
1st Lieutenant, L. E. Lamkins
2nd Lieutenant, B. W. Fairbanks
1st Sergeant, W. H. BonDurant
O. M. Sergeant, E. B. Ayres
Sergeants, LeRoy Bradley
D. Babcock
L. W. Chalcraft
H. J. Fitch
J. C. Mickelson
C. O. Schultz
Corporals, A. L. Carlson
C. M. Clark
H. E. Mueller
W. E. Everham
L. O. Mitchell

Company B
Sergeants, D. A. Albrecht
R. M. Fisher
F. M. Judson
R. Meyer
P. Van Winkle
M. G. Silver
P. L. Schroeder
G. M. Gehant
Corporals, C. A. Britt
A. L. Hegener
L. M. Turner
R. T. Elliott
L. C. Maxwell
J. K. Stringer

Company D
Captain, W. K. Norris
1st Lieutenant, Geo. Curtiss
2nd Lieutenant, W. W. Sheldon
1st Sergeant, H. R. Jobst
O. M. Sergeant, C. R. Coultas
Sergeants, R. A. Burton
T. Balderson
R. M. Chittenden
H. B. Fites
D. H. Kennett
H. W. Moor
J. H. Sedgwick
Corporals, J. H. Cryder
H. A. Pearson
H. H. Wiley
F. H. Thatcher

Second Battalion

Major.....W. C. Armstrong
First Lieutenant and Adjutant.....R. E. Denz
Second Lieutenant and Quartermaster.....R. L. Schliesswohl
Sergeant Major.....J. H. Powers

Company E
Captain, R. R. Zippodt
1st Lieutenant, D. E. Miller
2nd Lieutenant, W. L. Rohlfing
1st Sergeant, J. W. Hilbert
O. M. Sergeant, I. Countryman
Sergeants, E. T. Colton
H. L. Clayton
S. S. Fitzgerrell
A. W. Landstrom
C. O. Mueller
A. H. Seeglitz
D. A. Fay
Corporals, H. L. Carlson
G. H. Hoffman
L. B. Perkins
C. A. Williams
W. A. Moore
J. H. Ticknor

Company G
Captain, A. H. Huiskon
1st Lieutenant, R. V. Waller
2nd Lieutenant, L. R. Lumley
1st Sergeant, H. W. MacKechnie
O. M. Sergeant, D. H. Hamilton
Sergeants, L. V. Cope
P. Becker
E. P. Frohardt
J. T. Lewis
H. Greenhill
Corporals, I. Morrison
J. H. Dale
W. R. Horney
G. E. Potter
R. J. Woods
C. J. Gruhl
C. L. Pfeiffer

Company F
Captain, I. R. Cline
1st Lieutenant, W. H. Hough
2nd Lieutenant, E. C. Swartwout
1st Sergeant, H. R. Ferguson
O. M. Sergeant, Q. D. Dick
Sergeants, L. A. Bauder
D. C. Corzine
J. H. Fleming
C. H. Sheppard
F. W. Leggitt
J. L. Munson
R. H. Engle
Corporals, H. C. Grunewald
H. H. Porter
G. C. Wilson
R. E. Gray
J. F. Taggart
C. M. Ettinger
B. Conklin

Company H
Captain, C. A. Nebel
1st Lieutenant, F. M. VanNatter
2nd Lieutenant, C. N. Owen
1st Sergeant, E. C. Dewey
O. M. Sergeant, H. H. Hensold
Sergeants, C. B. Dippell
W. A. Behel
C. W. Smith
F. H. Geiler
B. V. Lichter
C. Gross
Corporals, C. F. Naden
G. R. Davis
C. G. Howard
J. H. Ramser
D. A. Hamilton
R. E. Polk
A. C. Woods

Third Battalion

Major.....	E. H. Pool
First Lieutenant and Adjutant.....	R. S. Mason
Second Lieutenant and Quartermaster.....	O. J. Troster
Sergeant Major.....	P. Calhoun

Company I

Captain,	A. M. Baker
1st Lieutenant,	E. F. Pihlgard
2nd Lieutenant,	O. C. K. Hutchinson
1st Sergeant,	C. R. Gross
Q. M. Sergeant,	A. R. Keagy
Sergeants,	I. L. Limmis
	H. V. Newlin
	R. M. Overton
	A. R. Gould
	J. R. Lindsey
Corporals,	F. E. Evans
	W. M. Richmond
	F. E. Williams
	W. T. Purcell
	R. C. Woods
	H. R. Richardson

Company L

Captain,	L. E. Thorne
1st Lieutenant,	M. C. Johnson
2nd Lieutenant,	A. G. Steinmayer
1st Sergeant,	M. M. Lovell
Q. M. Sergeant,	R. M. Leuder
Sergeants,	W. S. Frazier
	L. H. Davis
	J. F. McCloud
	P. W. Ott
	V. H. Dupre
	C. K. Gabriel
Corporals,	M. C. Faulk
	J. G. Ritter
	W. A. Brittin
	L. A. Hoffman
	R. E. Rath sack

Company K

Captain,	M. E. Slater
1st Lieutenant,	R. D. Barnes
2nd Lieutenant,	K. S. Stice
1st Sergeant,	H. B. Dutton
Q. M. Sergeant,	R. H. Lawrence
Sergeants,	B. Foster
	B. C. Berg
	G. C. Darrell
	C. R. Gideon
	C. C. Lundeen
	D. R. Norris
	G. C. Smith
Corporals,	H. G. Overend
	S. W. Excell
	G. L. Ritchie
	M. A. Hein
	R. S. Raaberg
	H. J. Barnes

Company M

Captain,	J. H. Miller
1st Lieutenant,	A. M. Kircher
2nd Lieutenant,	L. E. Mulac
1st Sergeant,	S. McNulta
Q. M. Sergeant,	R. B. McFarland
Sergeants,	E. H. Gay
	C. M. Hall
	W. T. McElveen
	G. J. Page
	R. D. Sundell
Corporals,	R. P. Rahn
	A. H. Kaufman
	M. I. Robinson
	L. L. Hunt
	E. M. Reschets
	C. R. Frederick

SECOND REGIMENT

Lieutenant Colonel.....	A. H. Grunewald
Captain and Adjutant.....	G. H. Butler
Captain and Quartermaster.....	E. A. James
Captain and Commissary.....	A. M. Barreau
Regimental Sergeant Major.....	V. H. Grossberg
Regimental Quartermaster Sergeant.....	M. Heath
Regimental Commissary Sergeant.....	H. L. Husson
Regimental Color Sergeant.....	W. L. Crawford

First Battalion

Major.....	C. F. Hood
First Lieutenant Adjutant.....	R. Steinmayer
Second Lieutenant and Quartermaster.....	H. T. Rogers
Sergeant Major.....	D. D. Sharer

Company A

Captain,	C. L. Ritts
1st Lieutenant,	C. W. McCumber
2nd Lieutenant,	G. S. Schaller
1st Sergeant,	E. S. Axline
Q. M. Sergeant,	J. O'Neil
Sergeants,	H. C. Geselbracht
	H. J. Bluhm
	M. R. Davis
	T. T. McEvoy
	C. S. Palmer
	J. W. Teasdale
Corporals,	W. W. Polk
	W. C. Savage
	J. L. Brown
	F. W. Jones
	R. Rahn

Company B

Captain,	D. C. Scheele
1st Lieutenant,	D. W. Crane
2nd Lieutenant,	C. W. Lenzing
1st Sergeant,	H. O. Siegmund
Q. M. Sergeant,	C. H. Ruedi
Sergeants,	A. A. Gilbert
	E. F. Bolinger
	H. S. McGuinness
	F. W. Patton
	R. H. Thompson
	D. F. Heath
Corporals,	H. H. Rathburn
	A. T. Fishman
	A. R. Kinsey
	W. M. Keach
	E. G. Roos
	M. Schecht
	E. W. Brunskill

Company C
 Captain, G. D. Griswold
 1st Lieutenant, E. C. O. Beatty
 2nd Lieutenant, J. G. Eppinger
 1st Sergeant, D. T. Swain
 Q. M. Sergeant, J. O. Schmitz
 Sergeants, R. E. Dippel
 L. C. Heckler
 R. Perry
 H. P. Thurlow
 H. B. Bramlet
 R. L. McKown
 J. W. Washburn
 Corporals, D. C. Goudy
 H. A. Kirby
 R. J. Craigmile
 A. R. Kemp
 C. B. Rowe
 S. C. Hopkins

Company D
 Captain, C. W. Lincoln
 1st Lieutenant, E. W. Noxon
 2nd Lieutenant, C. J. North
 1st Sergeant, M. B. Ware
 Q. M. Sergeant, L. F. Simpson
 Sergeants, C. E. Johnson
 W. E. Brotherton
 L. F. Draper
 S. R. Heindel
 W. H. Mandeville
 S. Trelease
 N. Gerten
 Corporals, J. H. Armstrong
 R. E. Lawrence
 H. Schroepel
 S. R. Cunningham
 N. A. Knudson
 J. A. Schulz

Second Battalion

Major.....L. D. Knapp
 First Lieutenant and Adjutant.....R. R. Thomas
 Second Lieutenant and Quartermaster.....L. W. Reese
 Sergeant Major.....F. A. Logan

Company E
 Captain, E. R. Dillavou
 1st Lieutenant, A. G. Stone
 2nd Lieutenant, L. S. Morrill
 1st Sergeant, E. P. Daley
 Q. M. Sergeant, G. L. Smith
 Sergeants, T. O. Moffet
 R. P. Brown
 D. M. Elliott
 A. A. Hoffman
 H. M. Martin
 E. D. Van Frank
 M. L. Reed
 Corporals, V. E. Ascherman
 L. R. Gray
 L. R. Lehman
 R. A. Scott
 F. W. Shaw

Company F
 Captain, S. S. Davis
 1st Lieutenant, J. H. Gage
 2nd Lieutenant, P. D. Amsbary
 1st Sergeant, T. S. Hamilton
 Q. M. Sergeant, W. Stanley
 Sergeants, J. W. Nelson
 A. H. Burger
 K. Epstein
 O. W. Holmes
 W. A. Mather
 C. W. Reuling
 Corporals, J. K. Barber
 C. A. Gustafson
 G. L. Lindeberg
 E. F. Shelley
 D. E. Mayrard
 E. T. Davis

Company G
 Captain, R. Niver
 1st Lieutenant, J. E. Fetherston
 2nd Lieutenant, H. P. Grieson
 1st Sergeant, C. Citizen
 Q. M. Sergeant, C. B. Taylor
 Sergeants, E. L. Stouffer
 F. E. Butterfield
 W. B. Ewer
 M. C. Hughes
 L. B. Maxwell
 L. Whitney
 Corporals, P. E. Bower
 T. McGowan
 H. Soderburg
 H. L. Derby
 A. N. Lundgren
 J. A. Ranney

Company H
 Captain, H. E. Barden
 1st Lieutenant, R. W. Miller
 2nd Lieutenant, R. F. Harvey
 1st Sergeant, J. E. Ott
 Q. M. Sergeant, S. P. Howe
 Sergeants, C. E. Turner
 W. F. Campbell
 H. W. Felton
 E. T. Janssen
 H. M. Maze
 Corporals, M. S. Hancock
 D. R. Martin
 C. E. Swenson
 K. L. Helper
 S. J. Lurie

Signal Company
 Captain, L. C. Bow
 1st Lieutenant, R. W. Kritzer
 1st Lieutenant, B. I. Rutledge
 1st Lieutenant, H. A. Smith
 1st Sergeant, C. E. Trout
 Sergeants, J. W. Smith
 A. Tower
 F. A. Brooks
 M. A. Gould
 Corporals, H. L. Ford
 J. H. Kasbeer
 J. P. Smallwood
 W. T. Brady
 D. L. Foster
 R. S. Pfeiffer

Battery
 Captain, M. E. Hoyt
 1st Lieutenant, S. N. Vibelius
 2nd Lieutenant, G. W. Haan
 1st Sergeant, V. H. Kern
 Sergeants, L. T. McCabc
 M. D. Roberts
 T. A. Haish
 L. L. Davis
 L. G. Ayres

ANNUAL COMPETITIVE DRILLS—1914

Winner University Gold Medal.....Sergeant Major E. Shelby
 Winner Hazelton Gold Medal.....Lance Corporal L. H. Gift

Infantry

University Bronze Medals

(Sophomore Competitive Drill)

Company C, 1st Battalion, University Regiment

Captain,	E. L. Hasker	Privates,	F. J. A. Hoehn
1st Lieutenant,	J. C. Hostetler		C. R. Howe
2nd Lieutenant,	E. J. Bartz		H. L. Humpidge
1st Sergeant,	W. H. Hough		E. G. Johnson
Sergeants,	L. E. Lamkins		H. J. Johnson
	C. W. Lenzing		G. C. Klippel
	W. L. Parish		E. Koepke
	R. S. Schell		P. G. Kuhnien
	W. P. Beaubien		G. Lanau
Corporals,	T. S. Simmons		A. H. Lenz
	C. R. Haskett		F. W. Martin
	A. R. Keller		G. E. Melin
	J. H. McCormack		R. L. Moses
	R. W. Ruth		H. L. Mueller
	H. W. Lindsay		R. H. Nixon
Privates,	J. G. Allen		J. J. Patterson
	V. W. Behel		P. T. Primm
	L. B. Boyd		D. W. Probst
	P. BreCount		F. W. Ramey
	O. M. Burns		G. L. Rigg
	C. E. Cooper		W. O. Roessler
	B. N. Culmer		G. S. Rogers
	H. R. Davis		G. F. Sallee
	F. L. Dougherty		E. Schaeffer
	H. J. Donaldson		R. F. Shaffer
	D. Downey		G. W. Smith
	F. E. Dunlap		G. E. Sterling
	O. M. Fuller		H. F. Sutton
	K. Geisendorfer		J. A. Tate
	P. H. Graves		W. W. Trantow
	W. W. Gunkel		W. G. Tuell
	S. Hansen		J. W. Watson
	G. H. Hartman		R. N. Wilford
	J. H. Hedcock		M. Wolter
	W. W. Hixon		G. A. Wisley

**University Bronze Medals and Pins*

(Freshman Competitive Drills)

Company C, 2nd Battalion, University Regiment

Captain,	W. J. Bublitz	Privates,	C. A. Britt
1st Lieutenant,	L. H. Dunham		M. E. Canady
2nd Lieutenant,	A. H. Huiskien		B. J. Carius
1st Sergeant,	E. C. O. Beatty		F. C. Cargill
Sergeants,	E. W. Noxon		J. Cartmill
	C. N. Owen		R. W. Cochran
	L. J. Rust		R. E. Copper
	L. W. Reese		C. Crofts
	Bayard Brown		G. Cullinane
Corporals,	W. E. Baker		H. Darby
	H. C. Coleman		L. Day
	L. E. Herget		C. D. Dick
	C. A. Klein		P. A. Dudley
	O. C. Markwell		D. M. Elliott
L. Corporals,	W. H. BonDurant		W. B. Ewer
	J. H. Needler		H. R. Ferguson
Privates,	D. A. Albrecht		H. B. Fites
	A. Arends		W. S. Frazier
	H. S. Arnold		G. M. Gehant
	C. Boeck		
	E. Bohrn		

*Sophomores, bronze medals. Freshmen, bronze pins.

G. T. Gore
D. Grover
T. Hamilton
S. D. Harwood
K. L. Helper
J. Hirstein
C. H. Hudelson
M. C. Hughes
J. N. Johnson
I. Jorstad
F. E. Kier
A. R. Kinsey
N. A. Knudson
M. Leach
S. T. Lurie
W. McCaughey
W. McElveen
F. B. Macomber
D. Magruder
H. E. Mueller
J. Newar

W. Nordenholt
P. W. Ott
C. Palmer
H. Pendarvis
H. Porter
R. Raaberg
H. Rathburn
E. Richolson
L. Roedel
H. Shank
C. Shearer
E. F. Shelley
L. Smith
R. Sundell
D. Swain
G. W. Teasdale
F. Walker
L. B. Walsh
H. Wiley
E. Winter

Artillery

University Bronze Medals

Captain,
1st Lieutenant,
2nd Lieutenant,
1st Sergeant,
Privates,

E. R. Foster
M. E. Hoit
R. Niver
S. N. Vibelius
L. G. Ayres

Privates,

H. C. Clendeninn
L. L. Davis
R. S. Fraser
R. C. Eaton
D. McGregor

J. F. Wright

Signal Company

University Bronze Medals

Captain,
1st Lieutenant,
2nd Lieutenant,
Sergeant,
Corporal,
Privates,

L. W. Faulkner
L. C. Bow
R. W. Parker
F. H. Williams
J. R. Tanner
J. W. Smith
E. C. Horton
R. A. Burtnett

Privates,

J. G. Fitch
L. R. Caldwell
M. A. Gould
V. E. Spencer
H. B. Ingalls
H. A. Smith
B. H. Clark
B. I. Rutledge

Rifle Competition

University Bronze Medals

Company C, 3rd Battalion Team

1st Sergeant,
Sergeant,

D. E. Miller
J. H. Gage

Privates,

L. M. Bailey
A. D. Little

H. F. Wanderer

Battalion Competitive

Third Battalion—Major P. C. Rich, Commanding

SUMMARY OF OFFICERS

BY COLLEGES AND SCHOOLS

1914-15

OFFICERS OF INSTRUCTION

COLLEGES AND SCHOOLS	PROFESSORS		ASSOCIATE PROFESSORS		ASSISTANT PROFESSORS		ASSOCIATES	
	Men	Wom.	Men	Wom.	Men	Wom.	Men	Wom.
Liberal Arts and Sciences..	46	..	10	..	26	..	16	1
Engineering	17	..	1	..	18	..	14	..
Agriculture	15	1	..	..	12	1	21	3
Music	1	..	..	..	1	1	..	..
Law	6	..	..	..	1	..	..	..
Library	1	..	..	..	..	1	..	1
Military Science.....	1	..	..	..	..	..	..	..
Physical Training.....	1	1	..	..	..	..	..	..
<i>Totals at Urbana.....</i>	88	2	11	..	58	3	51	5
Medicine	29	..	8	1	19	3	1	..
Dentistry	8	..	..	..	4	..	..	..
Pharmacy	1	..	..	..	1	..	..	..
<i>Totals in Chicago.....</i>	38	..	8	1	24	3	1	..
TOTALS IN UNIVERSITY..	126	2	19	1	82	6	52	5

OFFICERS OF ADMINISTRATION

General	
Library Staff.....	
TOTAL, INSTRUCTIONAL AND ADMINISTRATIVE.....	
<i>Deduct Duplicates.....</i>	
NET TOTAL IN UNIVERSITY.....	

SUMMARY OF OFFICERS

BY COLLEGES AND SCHOOLS

1914-15

SPECIAL LECTURERS		INSTRUCTORS		ASSISTANTS		GRADUATE ASSISTANTS		STUDENT ASSISTANTS		TOTALS		
<i>Men</i>	<i>Wom.</i>	<i>Men</i>	<i>Wom.</i>	<i>Men</i>	<i>Wom.</i>	<i>Men</i>	<i>Wom.</i>	<i>Men</i>	<i>Wom.</i>	<i>Men</i>	<i>Wom.</i>	<i>Total</i>
1	..	47	8	69	9	28	2	13	..	256	20	276
1	..	38	..	16	..	..	..	..	..	105	..	105
1	..	14	8	29	..	..	..	..	..	92	13	105
..	..	5	3	..	..	..	..	..	..	7	4	11
..	..	..	..	..	..	..	..	..	..	7	..	7
..	1	1	1	..	1	..	..	..	..	2	5	7
..	..	..	..	..	..	..	..	10	..	11	..	11
..	..	3	2	1	3	..	..	..	1	5	7	12
3	1	108	22	115	13	28	2	23	1	485	49	534
3	..	70	4	19	2	..	..	8	..	157	10	167
2	..	10	..	2	..	..	..	5	..	31	..	31
1	..	4	..	..	..	..	..	..	..	7	..	7
6	..	84	4	21	2	..	..	13	..	195	10	205
9	1	192	26	136	15	28	2	36	1	680	59	739
.....										49	3	52
.....										6	38	44
.....										735	100	835
.....										45	13	58
.....										690	87	777

SUMMARY OF STUDENTS

1914-1915

College and Course	Seniors			Juniors			Sophomores		
	Men	Wom.	Total	Men	Wom.	Total	Men	Wom.	Total
LIBERAL ARTS AND SCIENCES									
General	58	92	150	76	83	156	65	71	136
Business	34	3	37	70	...	70	87	5	92
Medical Preparatory...	3	...	3	13	...	13	27	1	28
Household Science...	...	36	36	...	43	43	...	41	41
Chemistry	6	...	6	13	1	14	5	1	6
Chemical Engineering..	18	...	18	14	...	14	29	...	29
Ceramics	7	...	7	12	...	12	13	...	13
Ceramic Engineering...	7	...	7	5	...	5	4	...	4
Totals	133	131	264	203	124	327	230	119	349
ENGINEERING									
Architecture	26	...	26	29	...	29	39	1	40
Architectural Eng.....	17	...	17	35	...	35	52	...	52
Civil Engineering.....	30	...	30	35	...	35	44	...	44
Electrical Engineering.	24	...	24	59	...	59	60	...	60
Mechanical Engineering	29	...	29	55	...	55	67	...	67
Mining Engineering...	3	...	3	3	...	3	8	...	8
Mun. & San. Eng.....	8	...	8	8	...	8	9	...	9
Railway Civil Eng.....	...	...	...	4	...	4	3	...	3
Railway Electr. Eng...	1	...	1	...	...	...	7	...	7
Railway Mech. Eng...	...	...	...	1	...	1	4	...	4
Totals	138	...	138	229	...	229	293	1	294
AGRICULTURE									
General	120	3	123	160	4	164	206	1	207
Household Science.....	...	10	10	...	18	18	...	42	42
Totals	120	13	133	160	22	182	206	43	249
MUSIC	2	7	9	...	9	9	1	9	10
TOTALS UNDERGRADUATES AT URBANA									
URBANA	393	151	544	592	155	747	730	172	902
				Third Year			Second Year		
LAW				16	...	16	27	...	27
LIBRARY SCHOOL.....									
							...	18	18
TOTALS, UNDERGRADUATE AND PROFESSIONAL SCHOOLS AT URBANA.....									
GRADUATE SCHOOL.....									
TOTALS AT URBANA.....									
SUMMER SESSION (1914)									
TOTAL REGISTRATION.....									
Deduct Students Returned.....									
Net Total, Summer Session.....									
TOTALS AT URBANA, TO FEBRUARY 20, 1915.....									
MEDICINE (Chicago)...									
	93	8	101	105	6	111	55	6	61
DENTISTRY (Chicago).....									
				21	...	21	37	1	38
PHARMACY (Chicago)									
Ph.G. Course.....							70	2	72
Ph.C. Course.....							4	1	5
Total Pharmacy.....							74	3	77
TOTAL IN CHICAGO.....									
TOTAL IN UNIVERSITY TO FEBRUARY 20, 1915.....									
Deduct Duplicates.....									
NET TOTAL.....									

SUMMARY OF STUDENTS

1914-1915

<i>Freshmen</i>			<i>Specials</i>			<i>Totals</i>		
<i>Men</i>	<i>Wom.</i>	<i>Total</i>	<i>Men</i>	<i>Wom.</i>	<i>Total</i>	<i>Men</i>	<i>Wom.</i>	<i>Total</i>
237	184	421	12	10	22	448	437	885
206	8	214	7	...	7	404	16	420
67	1	68	...	...	...	110	2	112
...	94	94	...	1	1	...	215	215
26	...	26	...	...	...	50	2	52
36	...	36	...	...	...	97	...	97
11	...	11	...	...	...	43	...	43
14	...	14	...	...	...	30	...	30
597	287	884	19	11	30	1,182	672	1,854
80	1	81	3	...	3	177	2	179
75	...	75	...	...	...	179	...	179
94	...	94	3	...	3	206	...	206
125	...	125	1	...	1	269	...	269
117	...	117	3	...	3	271	...	271
25	...	25	...	...	...	39	...	39
11	...	11	...	...	...	36	...	36
6	...	6	...	...	...	13	...	13
6	...	6	1	...	1	15	...	15
1	...	1	...	...	...	6	...	6
540	1	541	11	...	11	1,211	2	1,213
446	9	455	78	11	89	1,010	28	1,038
...	59	59	...	4	4	...	133	133
446	68	514	78	15	93	1,010	161	1,171
1	37	38	4	19	23	8	81	89
1,581	391	1,972	112	45	157	3,411	916	4,327
55	<i>First Year</i>	55	10	...	10	108	...	108
3	24	27	...	4	4	3	46	49
.....						3,522	962	4,484
.....						369	75	444
.....						3,891	1,037	4,928
.....						589	349	938
.....						322	98	420
.....						267	251	518
.....						4,158	1,288	5,446
10	<i>Freshmen</i>			<i>Specials</i>				
2	2	12	1	1	2	264	23	287
23	<i>Freshmen</i>			<i>Specials</i>				
...	...	23	2	...	2	83	1	84
69	<i>First Year</i>			<i>Specials</i>				
5	5	74	46	...	46	185	7	192
2	...	2	...	...	...	6	1	7
71	5	76	46	...	46	191	8	199
.....						538	32	570
.....						4,696	1,320	6,016
.....						10	2	12
.....						4,686	1,318	6,004

SUMMARY OF DEGREES

Degrees in the Graduate School

A.M.	72
M.S.	40
C.E.	4
E.E.	2
M.Arch.	2
Ph.D.	22

Total..... 142

Baccalaureate Degrees

A.B., College of Liberal Arts and Sciences.....	247
B.L., College of Liberal Arts and Sciences*.....	27
B.S., College of Liberal Arts and Sciences.....	21
B.S., College of Liberal Arts and Sciences*.....	5
B.S., College of Engineering.....	218
B.S., College of Engineering*.....	10
B.S., College of Agriculture.....	143
B.S., College of Agriculture*.....	3
B.Mus., School of Music.....	5

Total..... 679

Degrees in Law

LL.B.	22
J.D.	3

Total..... 25

Degrees in Library Science

B.L.S. 5

TOTAL, COLLEGES AND SCHOOLS IN URBANA..... 851

Degrees in Medicine

M.D. 113

Degrees in Dentistry

D.D.S. 30

Degrees in Pharmacy

Ph.G. 32

Ph.C. 6

Total..... 38

TOTAL, DEPARTMENTS IN CHICAGO..... 181

TOTAL, ALL DEPARTMENTS..... 1032

*Degrees conferred on former students; see page 530.

INTERCOLLEGIATE DEBATERS

1913-14

In the Central Debating Circuit

Against Iowa

LEAL WILEY REESE
HARRY THOMAS WOOD
HERBERT CLARENCE HELM

Against Wisconsin

ISAAC RAY CARTER
RALPH EBNER HIMSTEDT
FRANK CLIFTON SLATER

In the State University League

Against Ohio State

DONALD ASHWAY GROSSMAN
GEORGE WASHINGTON BRISTOW
BURLEY FRANK LAMB

Against Indiana

PERLEY MELVIN WATSON
VERNON THOMPSON STEVENS
BENJAMIN WHAM

Representative in the Northern Oratorical League

ALBERT VERNON ESSINGTON

DIRECTORY OF ALUMNI ASSOCIATIONS

GENERAL ALUMNI ASSOCIATION

President: A. N. Talbot, '81, 1011 W. California avenue, Urbana, Ill.
Secretary-Treasurer: Franklin W. Scott, '01, 1103 W. Oregon street, Urbana, Ill.

DEPARTMENTAL ALUMNI ASSOCIATIONS

The Alumni Association of the Library School
President: Lillian B. Arnold, '02, Public Library, Dubuque, Iowa
Secretary-Treasurer: Jennie A. Craig, '06, 613 W. Springfield avenue, Champaign, Ill.
The Alumni Association of the College of Medicine
President: Dr. J. M. Berger, 4005 W. Madison street, Chicago
Secretary: Dr. Frank Chauvet, 726 S. Crawford avenue, Chicago
The Alumni Association of the College of Dentistry
President: Dr. C. M. Loescher, '04
Secretary: Dr. A. G. Nauman, 813 W. Harrison street, Chicago
The Alumni Association of the School of Pharmacy
President: George P. Mills, '84, Evanston, Ill.
Secretary-Treasurer: A. H. Clark, 74 E. Twelfth street, Chicago

LOCAL ALUMNI ASSOCIATIONS

California

SAN FRANCISCO: The Golden Gate Alumni Association of the University of Illinois
President: J. W. Forsyth, '81, Gilroy
Secretary-Treasurer: Ella Barber, '84, Kenwood
SOUTHERN CALIFORNIA: The University of Illinois Alumni Association of Southern California
President: Frank L. Drew, '04, 1154 N. Mentor avenue, Pasadena
Secretary: Ernest Ingold, '09, 335 S. Hill street, Los Angeles

Colorado

University of Illinois Club of Colorado
President: Frank L. Birney, '81, 309 Ideal block, Denver
Secretary-Treasurer: Dr. T. J. Fenton, '06

District of Columbia

WASHINGTON: University of Illinois Club of Washington
President: Wm. L. Chitty, '86, Interior Dept., Washington, D. C.
Secretary: W. O. Gordon, '11, Bureau of Animal Husbandry, Dept. of Agriculture, Washington, D. C.

Idaho

The Illini Club of Idaho
President: C. F. Pike
Secretary: F. N. Ropp, '08, Federal bldg., Boise

Illinois

AURORA: Aurora Illini Club
President: M. A. Kendall, '07, 715 Garfield blvd.
Secretary-Treasurer: W. B. Greene, '08, care Stephens-Adamson Co.
BELLEVILLE: The Illini Club of Belleville
President: L. N. Perrin, '07, Penn bldg.
Secretary: C. R. Ogle, '13, 617 E. B street
CENTRALIA: Centralia Illini Club
President: Charles Wham, '12
Secretary-Treasurer: Eva Mitchell, '12, 135 N. Cherry street
CHAMPAIGN: Champaign County Illini Club
President: I. U. Everhart, '09, 901½ W. California avenue, Urbana
Secretary-Treasurer: R. F. Little, '07, 606 Chalmers street, Champaign
CHICAGO: The Illini Club of Chicago
President: H. C. Coffeen, '98, 314 Federal street.
Secretary: R. E. Schreiber, '04, 1140 Otis bldg.
University of Illinois Alumnae Association of Chicago
President: Mrs. A. L. Kuehn, '03, 220 S. Ridgeland avenue, Oak Park
Secretary-Treasurer: Mrs. R. E. Schreiber, '06, 1500 Farwell avenue
DECATUR: Decatur Illini Club
President: W. J. Carey, '06, 718 W. Marietta street
Secretary-Treasurer: J. L. McLaughlin, '09, 502 Powers bldg.

- LA SALLE COUNTY:** La Salle County Illini Club
 President: D. G. Cairns, '02, 633 Congress street, Ottawa
 Secretary-Treasurer: J. R. Fornof, '10, 804 S. Park street, Streator
- McLEAN COUNTY:** McLean County Illini Club
 President: Hal M. Stone, '03, 30 White place, Bloomington
 Secretary-Treasurer: Jessie I. Lummis, '02, 307 North street, Normal
- PEORIA:** Peoria Illini Club
 President: Ross Hanson, 418 Dechman avenue
 Secretary: C. O. Fischer, '12, 815 Jefferson bldg.
- ROCKFORD:** University of Illinois Club of Rockford
 President: C. K. White, '12, 116 N. Independence avenue
 Secretary-Treasurer: W. F. Hull, '10, Manufacturers' National Bank Bldg.
- SPRINGFIELD:** Springfield Illini Club
 President: John R. Meiriman, 407 W. Monroe street
 Secretary: E. K. Stuart, '10
- VERMILION COUNTY:** Vermilion County Illini Club
 President: A. R. Hall, '01, Daniel bldg., Danville
 Secretary-Treasurer: Madge Gundy, '09, Bismarck
- WESTERN ILLINOIS:** Western Illinois Illini Association
 President: W. E. Whiteside, '07, Moline
 Secretary-Treasurer: James M. Johnston, '09, Moline

Indiana

- INDIANAPOLIS:** Indianapolis Illini Club
 President and Acting Secretary: C. E. Sargent, '86, 2272 N. Meridian street

Iowa

- DES MOINES:** Des Moines Illini Club
 President and Acting Secretary: L. S. Ross, '89, 1308 Twenty-seventh street

Michigan

- DETROIT:** The University of Illinois Alumni Association of Detroit
 President: T. W. Walton, '10, 303 Y. M. C. A. bldg., Detroit
 Secretary-Treasurer: E. B. Fletcher, '11, 303 Y. M. C. A. bldg., Detroit

Minnesota

- MINNEAPOLIS:** University of Illinois Alumni Club of Minneapolis
 President: H. E. Kahlert, '08, 209 Third avenue, south
 Secretary: Mrs. H. M. Turner, '08, 719 S. E. Erie street

Missouri

- KANSAS CITY:** University of Illinois Southwestern Alumni Association
 President: G. E. Tebbetts, '99, Kansas City Terminal Railway, Kansas City
 Secretary: D. C. Ketchum, '99, 518 New York Life Bldg., Kansas City
- ST. LOUIS:** The Illini Club of St. Louis
 President: George E. Pfisterer, '08, 1414 Chemical bldg., St. Louis
 Secretary-Treasurer: A. B. Remick, 1651 Pierce bldg., St. Louis

New York

- NEW YORK CITY:** University of Illinois Alumni Association of New York
 President and Acting Secretary: F. L. Davis, '88, 1713 Flatiron bldg.
- SCHENECTADY:** The Illini Club of Schenectady
 President: J. D. Ball, '07, care General Electric Co.
 Secretary-Treasurer: O. E. Grigsby, '11, consulting engineering dept., General Electric Co.

North Dakota

- FARGO:** Fargo Illini Club
 President: E. S. Keene, '90, 1028 Seventh street, N.
 Secretary-Treasurer: Frank White, '80, Valley City

Ohio

- CINCINNATI:** Cincinnati Illini Club
 President: F. L. Swanberg, '03
 Secretary: C. M. Kennan, '12, Seventh and Walnut streets
- CLEVELAND:** The Illini Club of Cleveland
 President: J. C. Cromwell, 86, Garrett-Cromwell Engineering Co., New England bldg., Cleveland
 Secretary: W. E. Underwood, '08, 102 Holyoke avenue

Oregon

- PORTLAND:** The Illinois Alumni Association of Portland

Pennsylvania

- PITTSBURGH:** University of Illinois Club of Pittsburgh
 President: C. D. Terry, '97, 1123 South avenue
 Secretary-Treasurer: K. H. Talbot, '09, 522 Frick bldg.

Tennessee

- MEMPHIS:** Memphis Illini Club
 President: John W. Palmer, '10, Bank of Commerce and Trust bldg.
 Secretary: E. S. Pennebaker, '10, care Union Railway Co., roadway dept.

Texas

- PALACIOS:** Gulf Coast Alumni Club
 President: Mary Williamson Elder, '87
 Secretary-Treasurer: Florence Williamson, '08

Utah

- Inter-Mountain Alumni Association of the University of Illinois**
 President: Wesley E. King, 116 U street, Salt Lake City
 Secretary: W. H. Gregory, 406 Utah Savings & Trust bldg., Salt Lake City

Washington

Puget Sound Association of the alumni and former students of the University of Illinois

President: I. H. Hill, '99, 622 Provident bldg., Tacoma

Secretary-Treasurer: Edwin E. Bullard, '06, 622 Provident bldg., Tacoma

Wisconsin

MADISON: University of Illinois Club of Madison

President: A. V. Millar, '97, 1011 Grant street

Secretary: Frank White, '69, 407 Sterling court

MILWAUKEE: University of Illinois Alumni Association of Milwaukee

President: H. T. McAllister, '10, 201 Twenty-second street

Secretary-Treasurer: Charles Hall, '06, 186 Thirteenth street

FOREIGN ALUMNI ASSOCIATIONS

India

University of Illinois Association of India

President: George C. Hewes, '83, M. E. Mission, Sitapur, Oudh, India

Secretary: Agnes G. Hill, '92, Y. W. C. A., Lucknow, India

Japan

Illini Club of Japan

President: S. Shiga, '93, Tokyo Technical School, Tokyo

Secretary: G. Fujimura, '11, Agricultural Experiment Station, Taihoku, Formosa

INDEX OF NAMES

(BOARDS, FACULTIES, LECTURERS, AND STAFFS)

(For General Index, see page 563.)

- Abbott, A. N.**, 12
Abbott, W. L., 9, 10, 11, 12
Ackerman, A. G. C., 11
Alden, E. S., 25, 327
Aldrich, H. A., 12
Alexander, David, 35, 241
Alexander, Lilla M., 30
Allen, Louis, 27, 404
Allen, P. W., 28, 308
Allen, Ralph, 12
Allen, R. W., 28, 288
Allison, I. D., 23, 350, 427
Allyn, O. M., 26, 266, 425
Alvord, C. W., 19, 194, 345, 348, 349
Ammann, J. F., 12
Anders, Paul, 27, 288, 293
Anderson, L. F., 208, 318, 322
Andrews, J. B., 25, 269, 426
Andros, S. O., 22, 376, 436
Armstrong, E. K., 35, 230, 231
Armstrong, W. C., 29, 375
Ash, Percy, 21, 274, 276, 277
Atkinson, Evelyn, 14
Atwell, C. A., 28, 310
Aumer, J. P., 425
Aust, F. A., 27, 351
Austin, F. G., 12
- Babbitt, H. E.**, 25, 378, 379
Babcock, K. C., 13, 15, 19
Bach, I. W., 36, 37, 235, 249
Bachelle, Cecil V., 33, 232, 233
Bacon, C. S., 32, 282, 233
Baechtold, Elsie, 30
Bagley, W. C., 16, 18, 39, 208, 318, 319, 321, 323, 324
Bailey, E. W., 22, 350, 351, 352, 427
Bake, L. E., 37, 250
Baker, H. L., 34, 239, 240
Baker, I. O., 17, 298, 299, 301, 303
Baldwin, E. C., 20, 327, 328, 329, 330
Balke, C. W., 19, 39, 208, 287, 288, 289, 291, 294, 295, 296, 297
Ball, T. R., 27, 287
Ballenger, H. C., 35, 242, 243
Bamberger, Arrie, 34, 239, 240
Barbre, Clarence, 29, 288
Barden, H. E., 29, 376
Barker, F. D., 208, 411, 415
Barnhart, J. M., 426
Barrett, C. W., 32, 233, 234
Barron, Annie E., 34, 232, 233
Barto, D. O., 22, 269, 271
Barto, P. S., 24, 208, 340, 341, 344
Barton, H. J., 17, 208, 303, 305, 300, 307
Bartow, Edward, 18, 39, 287, 290, 296, 432, 433
Bauer, F. C., 22, 208, 264, 265, 267, 425
Baumgartner, Rachel A., 29, 411
Bayley, P. L., 27, 388, 390
Bayley, W. S., 19, 337, 338, 339, 340
Beal, G. D., 22, 208, 287, 289, 290, 291, 295, 296, 297
Beard, J. H., 23, 394, 395
Beck, C. B., 27, 327
Beck, J. C., 33, 242, 243
Belt, J. H., 428
Bement, A., 11
Benedict, B. W., 19, 369, 371, 372
Bennett, A. N., 432
Benson, E. O., 33, 230, 231
Bentley, Madison, 19, 399, 400, 401
van den Berg, H. J., 23, 379, 380
Berger, J. M., 34, 240
Birmingham, Eugene, 35, 242, 243
Bernard, F. J., 27, 249
Bevier, Isabel, 17, 355, 356, 357, 358
Biegler, P. S., 22, 324, 325, 326
Binding, L. R., 425
Birk, J. W., 34, 232, 233
Bissell, D. W., 29, 288
Blair, F. G., 9, 10
Blair, J. C., 17, 350, 352, 355, 427
Blaisdell, Daisy L., 23, 340, 341, 342
Blaney, H. W., 28, 351
Blatt, M. L., 35, 230, 231
Bleininger, A. V., 433
Blondheim, D. S., 21, 404, 406
Bloomfield, Leonard, 21, 307, 340, 341, 342
Bode, B. H., 18, 384, 385, 386
Boello, L. N., 225
Bogart, E. L., 19, 194, 311, 312, 313, 314, 316, 317
Boice, L. A., 14
Bolan, Anna, 249
Bole, S. J., 22, 350, 351, 427
Bollman, Minnie J., 30
Bond, Ethel, 24, 31, 361, 362
Boomsliiter, G. P., 23, 373
Borger, R. L., 21, 39, 364, 366
Boughton, T. H., 35, 235
Bowling, B. L., 298, 301
Boyer, C. V., 22, 327, 329
Bradbury, C. E., 25, 278, 279
Brainard, Adeline, 208, 379, 384
Braley, S. A., 29, 288
Brand, R. E., 22, 308, 426
Bregger, Thomas, 427
Broderson, H. J., 24, 287, 291, 292, 293
Brooks, Morgan, 17, 20, 324, 326
Brooks, N. C., 15, 340, 341, 342, 344
Brooks, Verna, 24, 208, 387, 388
Brothers, E. D., 34, 37, 228, 253
Brown, E. M., 33, 239, 241
Brown, H. D., 28, 351, 354
Brown, Ina M., 30
Brown, R. H., 33, 242, 243
Browne, W. H., 16
Brunskill, E. R., 29
Brunson, A. M., 426
Brush, Elizabeth P., 26, 345
Bryan, Sarah E., 30
Buchen, W. A., 26, 327, 331, 333
Buck, A. M., 21, 402, 403, 404
Bull, Sleeter, 22, 269, 270, 426
Bullen, Clifford, 35, 242, 243
Bunch, Mamie, 25, 355
Burge, W. E., 19, 394, 395
Burkhart, C. W., 29
Burlison, W. L., 22, 39, 265, 266, 267, 268, 425
Burmeister, W. H., 34, 235, 236
Burns, Josephine E., 24, 364
Burrill, T. J., 17, 47, 282
Burton, L. V., 26, 281, 282
Burton, S. C., 24, 274, 275

- Busey, Mary E., 9, 10
 Busey, M. W., 9
 Butterworth, F. W., 11
 Byford, H. T., 32
Cady, G. H., 433, 436
 Callen, A. C., 25, 376, 377
 Caun, Jessie Y., 25, 287
 Canter, H. V., 21, 208, 303, 304, 305, 306, 307, 345, 347
 Carlton, F. T., 208, 311, 317
 Carman, A. F., 17, 39, 388, 389, 390, 391, 392, 393
 Carmichael, W. J., 26, 269, 270, 272, 426
 Carnahan, D. H., 18, 404, 405, 406
 Carpenter, C. E., 21, 358, 359, 360
 Carry, C. S., 26, 208, 404, 405, 407, 408
 Cary, F. S., 35, 242
 Casner, Sidney, 208, 386, 387
 Cavanaugh, J. A., 35, 242, 243
 Chamberlin, T. C., 433
 Chandler, E. M. A., 29
 Charlton, E. E., 27, 288
 Chase, W. A., 23, 311, 314, 317, 318
 Chauvet, Frank, 34, 229
 Checkley, J. H., 26, 265
 Chenoweth, H. E., 28, 411
 Chittenden, E. W., 23, 364
 Cigrand, B. J., 34, 232
 Clark, C. C., 36, 239, 240
 Clark, C. R., 21, 274, 275, 276, 277, 278
 Clark, F. H., 11
 Clark, T. A., 13, 14, 17, 39, 327, 387
 Clark, W. A., 36, 241
 Clement, C. C., 34, 235
 Clevenger, C. B., 426
 Cobb, Margaret, V., 28, 318
 Coffey, W. C., 19, 269, 270, 271, 272, 426
 Coffman, Lotus D., 19, 39, 208, 318, 319, 320, 321, 322, 323, 324
 Cohn, J. S., 35, 250, 231
 Colby, A. S., 26, 351
 Cole, A. C., 23, 194, 345, 346, 347, 348, 349
 Colson, H. W., 38
 Comstock, A. F., 22, 402, 403, 404
 Conat, Mabel L., 30
 Conel, J. L., 29, 411
 Coolidge, E. D., 37, 251
 Cooper, Lane, 208, 327, 333
 Corubia, A. B. M., 24, 274, 276, 277, 278
 Corson, H. P., 26, 287, 290, 432
 Craig, Jennie A., 31, 361
 Crandall, C. S., 18, 427
 Crandall, W. T., 22, 308, 309, 350, 351, 352, 355, 426
 Crane, Rufus, 24, 310
 Crathorne, A. R., 21, 364, 367
 Creek, H. L., 22, 208, 327, 330, 333, 334
 Crooks, F. R., 35, 228, 229
 Cunningham, H. E., 9, 14
 Curl, H. E., 36, 37, 237, 253
 Curl, M. J., 24, 327, 331
 Curtis, Florence R., 22, 39, 260, 361, 362, 363
 Cushing, S. W., 208, 324, 395
Dalbey, Nora E., 27, 282
 Dale, P. M., 35, 229, 230
 Daniels, A. H., 17, 39, 384, 385, 386
 Danielson, R. R., 27, 285
 Darlings, U. G., 33, 231
 Darrah, Juanita E., 27, 288
 Davenport, Eugene, 13, 15, 17, 265, 273, 425
 Davenport, G. L., 34, 239, 240
 Davidson, C. N., 29, 288
 Davis, D. J., 33, 37, 235, 236, 249
 Davis, H. I., 33, 231, 232
 Davis, I. W., 25, 324, 325, 326
 Davis, R. E., 23, 298, 300, 301
 Davis, R. L., 29, 292
 Davis, T. A., 32, 239, 241
 Davison, Charles, 32, 239, 240, 241
 Davisson, B. S., 26, 287
 Day, W. B., 16, 38
 Deal, Edwin, 28, 351
 Dean, P. M., 29, 288
 DeCamp, J. E., 27, 399
 Decker, E. H., 18, 39, 358, 359, 360, 435
 Dent, J. A., 22, 39, 369, 370, 371
 Denton, W. W., 23, 364
 Derick, C. G., 12, 208, 287, 290, 291, 295, 296, 297
 Detlefsen, J. A., 21, 39, 269, 270, 273, 274, 426
 De Wolf, F. W., 433, 436
 Dewsnup, E. R., 18, 311, 313, 315, 316
 Diamond, I. B., 34, 231
 Dickenson, R. W., 425
 Dickerson, I. W., 22, 266, 268
 Didcoot, J. J., 14
 Dierks, G. W., 37
 Dittmar, G. W., 37, 250, 251
 Dixon, R. E., 27, 327
 Dodd, W. F., 20, 395, 397, 399
 Dodge, D. K., 17, 208, 327, 328, 329, 330, 333
 Domonoske, A. B., 24, 369, 370, 371
 Dorner, H. B., 21, 350, 351, 352, 354, 355, 427
 Downes, C. S., 25, 327
 Draffin, J. O., 428
 Dreesen, W. H., 27, 311
 Drennan, G. E., 11
 Dreyer, G. P., 13, 16, 32, 37, 237, 238, 252
 Drury, F. K. W., 15, 30, 361, 362
 Du Bois, H. M., 27, 337
 Duncan, J. M., 26, 369, 371, 372
 Dunlap, Fannie, 30
 Dunlap, H. M., 12
 Dunn, H. H., 402, 428
 Dunne, Governor, 9, 433
 Durst, C. E., 22, 350, 351, 354, 427
 Dyas, F. G., 33, 239, 240, 241
Earle, F. B., 32
 Easton, H. D., 438
 Eaton, Marquis, 435
 Eberhardt, Waldemar, 34, 228, 230
 Ebersoll, E. T., 24, 266
 Eck, C. P., 36
 Eckhart, W. G., 425
 Eckstein, H. C., 29
 Eddy, I. H., 34, 234
 Edcomb, J. H., 35, 239, 241
 Edmonds, J. L., 21, 269, 270, 271, 426
 Eicher, B. L., 38
 Eisendrath, D. N., 32, 239, 240, 242
 Ekblaw, K. J. T., 22, 266, 268
 Eldred, F. H., 29
 Eldredge, A. G., 25, 386
 Elles, E. C., 29, 375
 Ellis, C. A., 21, 298, 299, 301, 303
 Ellis, O. I., 426
 Emch, Arnold, 20, 364, 366
 Emigh, Edith, 30
 Emmett, A. D., 426
 Enger, M. L., 21, 373, 374, 378, 379
 England, Grace A., 30
 Engle, E. W., 26, 287
 Englis, D. T., 28, 351, 427
 Ensign, N. E., 23, 208, 373, 375
 Eppels, C. J., 26, 404, 405
 Erb, J. L., 16, 19, 379, 380, 382, 383
 Evans, F. N., 25, 351, 352, 353
 Evans, Laura B., 9, 10
 Eycleshymer, A. C., 32, 37, 225, 252
Fahrnkopf, H. F. T., 27, 266, 425
 Fairlie, J. A., 18, 194, 395, 397, 398, 399
 Falls, F. H., 35, 232, 233, 235
 Fanning, R. S., 25, 274, 276, 277, 278
 Fantus, Bernard, 32, 33, 236, 237
 Fargo, R. N., 24, 386
 Fehrenkamp, Winnifred, 31, 274, 361
 Felsenthal, Emma, 30, 361, 362
 Ferguson, A. D., 36, 239, 241
 Ferguson, H. F., 432
 Filbey, E. J., 14

Findlay, E. K., 33, 234, 235
 Fischmann, E. W., 34, 234
 Fisher, F. A., 24, 266, 267, 425
 Fisher, L. E., 12
 Fisher, O. S., 21, 265, 267, 425
 Fisk, I. W., 22, 324, 325
 Fitz-Gerald, J. D., 20, 404, 405, 407
 Flannery, R. E., 35, 239, 241
 Flattery, Amanda M., 30
 Fleming, Georgia E., 24, 208, 355, 356, 358
 Fleming, J. R., 436
 Fleming, V. R., 22, 373
 Flint, W. P., 431
 Flom, G. T., 20, 340, 344, 345
 Folsom, J. W., 20, 208, 334, 335, 336
 Footitt, Frank, 29
 Forbes, S. A., 17, 39, 334, 336, 425, 430, 431
 Ford, J. T., 29, 288
 Foss, Charles, 12
 Foster, W. D., 25, 274, 276, 277, 278
 Fox, E. F., 35, 228, 230
 Frank, Edwin, 25, 369, 371
 Fraser, Viola, 30
 Fraser, W. J., 18, 308, 309, 310, 426
 Frazer, G. E., 9, 14, 19, 311, 318
 French, W. M., 34, 230, 231
 Frisk, J. A., 26, 369
 Fry, Herman, 11
 Fuller, William, 33, 242
 Fulton, Edward, 20, 327, 328, 329, 330

Gallie, D. M., 37, 250
 Galpin, Stella B., 30
 Gamble, W. E., 33, 234, 235
 Gardner, Harry, 25
 Gardner, J. J., 23, 208, 264, 350, 351, 427
 Gardner, Stella M., 33, 227
 Garner, J. W., 18, 39, 360, 395, 396, 397, 398, 399
 Garrett, F. W., 425
 Garver, N. B., 22, 298, 299, 301, 302
 Gates, A. W., 11
 Gates, W. D., 11
 Gathercoal, E. N., 38
 Gatward, W. A., 428
 Gaut, Rosa-Lee, 26, 388
 Gaylord, T. B., 12
 Gehrman, Adolph, 32, 228
 Gentile, G. E., 425
 Gernert, W. B., 425
 Gerry, H. L., 29, 288
 Geweke, August, 12
 Gilkerson, H. C., 27, 266, 426
 Gill, H. L., 23, 208, 386, 387
 Gilmore, R. E., 25, 288
 Glasgow, R. D., 25, 334, 335
 Glenn, P. A., 431
 Glover, Anna C., 425
 Godeke, H. F., 23, 369, 371
 Goebel, Julius, 18, 39, 340, 342, 343, 344
 Goetz, Antoinette H., 30
 Golden, W. E., 36
 Goldthwaite, Nellie E., 21, 39, 355, 356, 358
 Gonnerman, H. F., 373, 375, 428
 Goodenough, G. A., 18, 369, 370, 372
 Goodkind, M. L., 32, 228, 230
 Goss, W. F. M., 11, 12, 13, 15, 16, 18, 402, 404, 428, 436
 Goulding, P. S., 30, 361
 Graham, A. J., 35, 242
 Grant, U. S., 433
 Graves, C. E., 30, 361
 Gray, Cora E., 22, 355, 356, 357
 Gray, Greta, 25, 355, 356
 Green, Alexander, 25, 340, 341, 342
 Green, Bessie R., 26, 411
 Green, Frederick, 18, 358, 359, 360
 Greene, E. B., 17, 39, 345, 346, 347, 348, 349
 Greene, J. N., 29, 875
 Gregory, C. V., 12
 Grimes, N. C., 28, 364

Grindley, H. S., 18, 269, 271, 273, 274, 287, 291, 295, 296, 426
 Gross, G. A., 25, 208, 369, 371, 372
 Grunewald, A. H., 29, 375
 Guild, T. H., 208, 327, 333, 334
 Gunderson, A. J., 427
 Gustafson, A. F., 22, 265, 267, 425

Haessler, C. H., 27, 384, 385
 Hague, Stella M., 24, 208, 282, 283, 284, 285
 Hakanson, A. F., 29, 236, 237
 Hakansson, E. G., 36
 Hale, W. G., 15, 19, 39, 358, 359, 360
 Hall, S. M., 29
 Hall-Quest, A. L., 208, 318, 323, 324
 Halstead, A. E., 32, 239, 241
 Hammond, W. C., 35, 232, 233
 Handschin, W. F., 22, 269, 272, 274, 426
 Hanford, A. C., 27, 396
 Hanford, W. W., 432
 Hanger, J. H., 28, 318
 Hansen, Paul, 22, 378, 379, 432
 Harbarger, Sada A., 26, 327
 Harding, A. A., 23, 379, 383
 Harding, H. A., 19, 39, 308, 309, 310, 426
 Harding, L. A., 19, 369, 370, 371, 372
 Harger, J. R., 34, 239, 240
 Harker, O. A., 13, 15, 17, 39, 358, 359, 360
 Harlan, C. L., 208, 318, 323
 Harper, Claude, 28, 269, 270, 426
 Harper, J. E., 32
 Harper, Julia A., 427
 Harris, F. G., 33, 227
 Harris, L. H., 25, 327
 Harris, Lyndon, 35, 228, 229
 Harrison, Florence, 24, 355, 357
 Harsha, W. M., 32, 239, 240, 241
 Hart, C. A., 430, 431
 Hartung, Adolph, 35, 232, 236, 237
 Haskell, J. E., 34, 228, 229
 Hatfield, W. D., 29
 Hawthorne, W. C., 37, 250, 251
 Hay, Nathaniel, 14
 Hayes, E. C., 18, 408, 409, 410
 Heacock, E. M., 35, 232, 233
 Hecht, A. G., 28, 351, 352, 354, 427
 Hecker, C. H., 25, 287, 292
 Heilman, R. E., 21, 311, 312, 313, 314, 316
 Heimbürger, H. V., 27, 411
 Heintz, E. L., 33, 228, 229
 Heitkamp, G. W., 208, 395
 Held, F. E., 208, 340, 344
 Henrotin, Ellen M., 9, 10
 Hepburn, N. W., 21, 308, 309, 426
 Herbert, C. M., 26, 364
 Herdman, Margaret, 81
 Herron, W. H., 433
 Hess, J. H., 33, 230, 231
 Hess, R. W., 27, 287
 Heuse, E. O., 25, 287
 Hibbs, H. H., 27, 408, 409, 410
 Hieronymus, R. E., 23, 265
 Higgins, G. M., 29, 411
 Hill, A. A., 12
 Hill, C. F., 28, 388
 Hill, Mary, 208, 278, 280, 324
 Hillebrand, H. N., 25, 327
 Hilscher, Ralph, 432
 Hinds, M. E., 432
 Hjort, A. M., 29, 288
 Hoffman, R. W., 24, 351, 353, 354
 Hofto, J. A., 194
 Hogue, J. H., 26, 369
 Hoyt, O. W., 9, 10
 Holbrook, E. A., 21, 376, 377, 378
 Hollister, H. A., 14, 17, 39, 318
 Holmes, J. A., 436
 Holt, S. V., 425
 Honovski, B. R., 26, 287
 Hood, C. F., 29, 375
 Hopkins, B. S., 22, 209, 287, 296, 425
 Hopkins, C. G., 17, 265, 267, 268, 269, 425
 Hoskins, E. E., 425
 Hostetler, J. C., 29, 376

- Hottes, C. F., 19, 282, 283, 284, 285
 Houchens, Josie B., 30
 Hubeny, Max, 36, 232
 Huenink, H. L., 432
 Huff, G. A., 15, 17, 209, 386, 387
 Hughitt, Anna L., 27, 388
 Hulce, R. S., 24, 308, 309, 426
 Humiston, C. E., 33, 239, 240
 Hunter, W. R., 11
 Hursh, R. K., 24, 285, 286, 287
 Husband, R. M., 27, 310
 Hutchins, Margaret, 30, 361, 362
 Hutchinson, James, 427
 Hyslop, W. H., 27, 383
- Irish, E. J.**, 34, 230, 231
- Jackson, Mabel**, 29
 Jacobs, C. M., 33, 241
 Jahr, M. E., 23, 266, 268
 James, Edmund J., 13, 14, 17, 32, 37, 38, 48, 208, 425, 428, 480, 482, 433, 435, 436, 438
 James, L. V., 22, 324
 Jamison, A. W., 22, 209, 264, 265
 Janson, J. M., 29
 Janvrin, C. E., 31, 361, 430
 Jirka, F. J., 36, 229
 Johnson, Alice S., 30, 361, 362
 Johnston, C. H., 19, 209, 318, 319, 320, 321, 322, 323
 Jones, E. S., 24, 327
 Jones, H. S. V., 21, 327, 329, 330
 Jones, L. T., 25, 26, 388
 Jones, P. V., 22, 345, 346, 347, 348, 349
 Jones, R. R., 26, 209, 386, 387
 Jones, R. T., 24, 274, 276, 278
 Jones, T. S., 35, 235
 Jordan, H. H., 23, 209, 310
 Joseph, W. E., 22, 269, 270, 271, 273, 274, 426
 Jutton, Emma R., 30, 361, 362
- Kamm, Oliver**, 26, 209, 287, 297
 Kaplan, J. H., 37, 250
 Kapsa, Pauline R., 35, 234
 Karr, W. G., 29, 288
 Karrar, Sebastian, 26, 388, 389
 Kay, F. H., 433, 436
 Keith, Mary H., 426
 Keller, O. A., 26, 308, 309, 426
 Keller, R. B., 402, 403, 428
 Kellogg, J. M., 24, 274, 276, 278
 Kelso, Ruth, 26, 327
 Kempner, A. J., 23, 209, 364, 368
 Kempton, F. E., 27, 282
 Kennedy, R. E., 23, 369, 372
 Kessler, James, 28, 404
 Kile, Jessie J., 194
 King, O. A., 32, 231, 232
 Kingsley, J. S., 19, 411, 412, 413, 414
 Kinley, David, 13, 14, 15, 16, 17, 39, 311, 316, 317, 357, 435
 Kirkup, Florence M., 23, 379, 380
 Kirshman, J. E., 311
 Knapp, Aurella, 30
 Knapp, L. D., 29, 376
 Knight, A. R., 25, 324, 325
 Knight, C. K., 27, 311
 Knipp, C. T., 20, 388, 389, 390, 391
 Knorr, L. E., 14
 Koll, I. S., 35, 242
 Koller, A. H., 23, 209, 340, 341, 342, 343, 344
 Krafft, J. C., 35, 230, 231
 Kratz, A. P., 369, 428
 Krejci, E. J., 37
 Kremers, H. C., 28, 288
 Kunz, Jakob, 20, 38, 391, 392
 Kyle, Martha J., 13, 14, 19, 39, 327, 329
- Lake, E. J.**, 18, 278, 279
 Lamkey, E. M. R., 27, 282
 Lang, J. M., 33, 234
 Lang, LeRoy, 22, 308, 309, 426 ...
 Langelier, W. F., 432
 Lanham, E. T., 23, 369, 371, 372
 Lantz, C. W., 28, 282
 Larson, L. M., 19, 345, 346, 347, 349
 Laying, T. E., 428
 Leatherman, Marion, 31
 Lee, E. C., 438
 Lee, H. R., 29, 288
 Lee, Wallace, 433
 Leighty, W. R., 425
 Leonard, E. F., 35, 231
 Lescher, G. C., 11
 Leslie, H. D., 29
 Lessing, O. E., 19, 209, 340, 342, 343, 344
 Leutwiler, O. A., 20, 369, 370, 371, 372
 Lewison, Maurice, 33, 228, 229
 Lichner, Mathilda O., 36, 234
 Lichty, L. C., 428
 Lincoln, Mary C., 34, 227
 Lindgren, J. M., 433
 Lindley, W. C., 11
 Linkins, R. H., 27, 411
 Litman, Simon, 20, 209, 311, 312, 314, 315, 316, 317
 Little, K. F., 311, 314
 Lloyd, J. W., 18, 350, 351, 355, 426
 Logan, C. C., 425
 Loomis, R. S., 25, 327
 Lorch, G. J., 34, 228, 229
 Loring, J. B., 33, 234, 235
 Love, Mary E., 31
 Lucas, J. B., 29, 288
 Lueder, F., 11
 Lukens, W. P., 428
 Lybyer, A. H., 20, 345, 346, 348
 Lynn, E. V., 35
 Lytle, E. B., 22, 209, 364, 365, 366, 368
- MacArthur, C. G.**, 24, 287, 291, 295, 296
 McCarthy, J. J., 35, 230, 231
 McConn, C. M., 14, 39, 435
 McDaniel, A. B., 21, 298, 299, 301, 302, 303
 McDowell, H. S., 25, 369, 370, 371
 McDougall, W. B., 24, 282, 283
 McEwen, Mary G., 33, 233, 234
 McFarland, D. F., 20, 287, 289, 290, 292, 293, 296, 428
 MacGillivray, A. D., 20, 334, 335, 336
 McGuire, J. C., 37, 250, 253
 MacInnes, D. A., 22, 209, 287, 292, 294, 296, 297, 298
 McIntosh, Donald, 17, 410, 411, 425
 McJohnston, Harrison, 25, 311, 315, 327, 331, 332
 McKenna, C. M., 35, 311
 McKenna, E. L., 28, 242
 MacMillan, D. K., 431
 McNealy, R. W., 34, 239, 240
 Magath, T. B., 29, 411
 Maltby, H. W., 36, 241
 Malloch, J. R., 431
 Manley, E. J., 24, 386
 Mann, F. I., 12
 Manuel, W. A., 23, 288
 Marshall, R. H., 28, 364
 Marquis, S. D., 28, 288
 Mason, J. P., 12
 Math, E. R., 27
 Mathews, J. M., 22, 396, 397, 398
 May, H. G., 28, 411
 Mecker, Arthur, 9, 10
 Merrill, Harriet B., 29, 411
 Metcalf, H. E., 29, 411
 Metcalf, W. B., 35, 229, 230
 Mettler, L. H., 32, 231
 Meyer, G. H., 15, 20, 39, 340, 341, 342
 Meyer, K. A., 36, 239
 Meyerovitz, Max, 36, 239, 240
 Miles, L. E., 28, 351, 426
 Miller, G. A., 18, 364, 365, 367
 Miller, H. W., 15, 21, 39, 310
 Miller, J. E., 28, 345
 Miller, W. P., 27, 209, 264, 265

- Miller, W. S., 16, 26, 209, 318, 319, 321, 322, 324
 Miller, Wilhelm, 21, 350
 Mills, G. G., 25, 298, 301
 Mills, Matthew, 34, 228
 Mitchell, H. H., 271, 426
 Mohlman, F. W., 432
 Montgomery, J. T., 9, 10
 Montgomery, Julian, 428
 Moodie, R. L., 35, 37, 225, 252
 Moore, A. F., 9, 10
 Moore, C. R., 25, 324, 325, 326
 Moore, E. S., 34, 228, 230
 Moore, F. D., 33, 239, 240
 Moore, H. F., 19, 373, 374, 375, 428
 Moore, J. J., 34, 227, 228
 Moore, O. H., 24, 404, 405, 407
 Moorehead, F. B., 13, 16, 37, 249
 Moran, T. F., 209, 345, 350, 396, 399
 Morgan, W. L., 438
 Morey, Lloyd, 14
 Morphy, E. W., 24, 379, 381, 383
 Morris, R. W., 34, 223, 230
 Morrow, Joseph, 14
 Mosier, J. G., 18, 39, 265, 267, 268, 269, 425
 Moss, C. M., 17, 303, 304, 305
 Mosser, Robert, 34, 228, 230
 Moulton, Gertrude E., 15, 18, 39, 387, 388
 Muehlman, R. E., 27, 274, 275
 Mueller, Adolph, 11
 Mumford, H. W., 17, 39, 269, 271, 272, 273, 274, 426
 Muncie, F. W., 427

Nadeau, O. E., 35, 239, 241
 Nasmyth, H. D., 24, 379, 380
 Nathanson, J. B., 26, 209, 388, 393
 Nauman, A. G., 37, 251
 Nebel, M. L., 428
 Neill, Alma J., 27, 394
 Nevens, W. B., 28, 308, 426
 Newberger, Charles, 35, 232, 233
 Newell, C. R., 25, 266
 Newlin, C. J., 27, 269, 270, 273, 426
 Newman, H. P., 32
 Newman, Joseph, 12
 Niederman, Gertrude, 425
 Niver, Roe, 29, 376
 Noerenberg, C. E., 23, 39, 373
 Nolan, A. W., 21, 265
 Noyes, F. B., 37, 225, 251, 252
 Noyes, W. A., 18, 287, 290, 291, 296

Oberdorfer, H. D., 14
 Ochsner, A. J., 32, 289, 240, 241
 Oldfather, W. A., 20, 303, 304, 305, 306, 307, 345, 347
 Olin, H. L., 25, 287, 289, 290
 Oliver, T. E., 18, 209, 404, 405, 406, 408
 Osmond, Edith G., 25, 388

Packard, W. H., 209, 411, 415
 Page, G. T., 11
 Paine, E. B., 19, 324, 325, 326
 Park, J. C., 209, 324
 Parr, Rosalie M., 26, 282
 Parr, S. W., 17, 287, 291, 292, 293, 296, 432, 433, 436
 Parsons, M. E., 24, 209, 355, 356, 358
 Patton, Adah, 30, 361, 363
 Patton, J. M., 32, 228, 230
 Paul, H. G., 20, 39, 209, 324, 327, 328, 329, 330, 333
 Pearson, F. A., 25, 308, 426
 Pease, A. S., 15, 20, 39, 303, 304, 305, 306
 Pease, T. C., 23, 194, 345
 Peltier, G. L., 427
 Penrose, Alma, 28, 361
 Percy, N. M., 33, 239, 241
 Perrine, W. S., 12
 Petersen, Elmore, 28, 311, 312, 313
 Peterson, Alvah, 26, 209, 334
 Pettit, J. H., 18, 265, 425
 Phelps, J. M., 28, 327, 332
 Phelps, V. V., 14
 Phifer, C. H., 34, 239
 Pickels, G. W., Jr., 23, 298, 300
 Pickett, B. S., 21, 350, 351, 352, 427
 Pickler, W. E., 29, 282
 Pierce, Norval, 32, 243
 Pogue, R. B., 428
 Pomeroy, J. N., 18, 39, 358, 359, 360
 Pool, E. H., 29, 375
 Poor, C. M., 23, 340, 341, 342
 Porter, F. M., 22, 310
 Porter, J. L., 32, 241
 Post, F. W., 15, 375
 Post, G. W., 35, 239, 241
 Powell, B. E., 425
 Prasil, Anton, 28, 269, 426
 Price, M. O., 30
 Provine, L. H., 19, 274, 275, 276, 277, 278
 Prucha, M. J., 21, 308, 426
 Purington, D. V., 11
 Pusey, W. A., 32, 227
 Putnam, W. J., 26, 373

Quick, B. E., 28, 282
 Quine, W. E., 32

Radcliffe, B. S., 24, 285, 286
 Radebaugh, G. H., 24, 209, 369, 372, 373
 Rahn, Carl, 26, 399
 Rahn, Otto, 432
 Randolph, O. A., 26, 388, 390
 Rankin, F. H., 15, 20, 39, 265
 Rapeer, L. W., 209, 318, 322, 323
 Rayner, W. H., 23, 298, 300
 Read, J. W., 26, 287
 Read, M. K., 28, 337
 Rebman, P. J., 26, 369, 371, 372
 Redwood, C. W., 28, 411
 Reece, E. J., 24, 361, 362
 Reed, C. O., 24, 266, 268
 Reed, F. W., 23, 280, 281
 Reed, H. B., 26, 399, 401
 Rees, C. C., 427
 Rees, E. A., 28, 288
 Renz, Myrtle A., 30
 Rice, A. C., 12
 Rice, G. B., 23, 369
 Rice, G. S., 436
 Rich, J. L., 23, 337, 338, 340
 Richards, C. R., 13, 15, 18, 39, 369, 370, 372, 428, 436, 438
 Richardson, R. E., 430
 Richardson, R. K., 209, 345, 349, 350
 Ricker, N. C., 17, 274, 275, 277
 Ricketts, Clara A., 30
 Rietz, H. L., 19, 364, 365, 366, 367, 425
 Riggs, E. S., 37, 225, 253
 Rinaker, Clarissa, 24, 327
 Roberts, Elmer, 26, 209, 264, 269, 270, 273, 426
 Roberts, Nellie R., 30
 Robertson, Nellie M., 30
 Robertson, W. S., 20, 39, 209, 345, 346, 348, 349, 350
 Robinson, C. M., 19, 350, 353, 354
 Robinson, M. H., 17, 311
 Rogers, Anna S., 29, 899
 Rohrlack, O. H., 33, 232, 233
 Rolfe, C. W., 17, 337, 338, 433
 Root, R. R., 21, 350, 352, 353, 354
 Ross, C. S., 27, 337
 Rowe, Charles, 12
 Rowland, S. A., 209, 364, 368
 Ruby, G. B., 29
 Ruckmich, C. A., 24, 399, 400, 401
 Rudd, W. N., 12
 Rudolph, Louis, 35, 229
 Ruehe, H. A., 24, 308, 426
 Rugg, H. O., 23, 310
 Rupert, R. R., 36, 239, 241
 Rusk, H. P., 21, 269, 271, 426
 Ruth, W. A., 427
 Rutledge, George, 209, 364, 368
 Rydin, C. J., 35, 231

- Sachs, W. H.**, 425
Salisbury, R. D., 433
Samuels, A. F., 28, 280
Saret, L. R., 26, 327, 332
Savage, T. E., 20, 327, 338, 339, 340, 433
Schaefer, P. P., 11
Scheftel, Yetta, 194
Schiff, N. S., 36
Schmidt, E. C., 12, 18, 39, 402, 403, 404
Schnellbach, J. F., 432
Schoenberg, A. J., 34, 234
Schoepperle, Gertrude, 23, 327, 330
Scholl, L. A., 436
Scholz, Carl, 11
Schoonover, W. R., 27, 266, 267, 426
Schnoor, E. W., 36, 242
Schultz, Louis, 37, 249
Schulz, W. F., 20, 388, 389, 390
Schwartz, G. F., 21, 39, 379, 380, 382
Sconce, H. J., 12
Scott, Edna L., 23, 361
Scott, F. W., 21, 39, 327, 329, 331, 332
Scoville, H. T., 24, 39, 311, 317, 318
Sears, G. W., 25, 209, 287, 296
Seely, F. B., 23, 209, 373, 375
Seilen, Joseph, 36
Seippel, Clara P., 34, 234
Seymour, A. R., 14, 21, 404, 407
Seymour, Lurene, 22, 355, 356, 357
Shafer, H. O., 34, 239, 240
Shaffner, P. F., 35, 227
Shaklee, A. O., 34, 236, 237
Sharp, Bertha L., 30
Shattuck, S. W., 17, 364
Shaw, E. W., 433
Shaw, Hazel, 31
Shaw, J. B., 20, 39, 364, 365, 367, 368
Shelford, V. E., 21, 411, 412, 413, 414, 430
Shepard, A. D., 29, 288
Shepard, Queen L., 24, 384, 385, 386
Sherman, S. F., 18, 327, 328, 329, 330
Shoemaker, Dorothy R., 37, 388
Signor, Nelle, 30
Simmonds, W. E., 36, 236, 237
Simon, Anna V., 25, 379, 380
Simpson, Frances, 16, 20, 39, 360, 361, 363
Sims, C. E., 29
Sisam, C. H., 20, 364, 366, 367, 368
Sjoblom, M. C., 432
Skinner, G. S., 29, 288
Slater, W. A., 428
Slavik, E. F., 36, 235
Small, J. C., 36, 37, 237, 238, 253
Smejkal, H. J., 34, 228, 229
Smith, Constance Barlow, 21, 209, 324, 379, 383, 384
Smith, C. S., 35, 37, 237, 238, 239, 252, 253
Smith, F. A. C., 24, 350, 352, 353
Smith, Frank, 19, 411, 412, 413, 414
Smith, G. M., 21, 287, 289, 290, 294, 296
Smith, G. W., 27, 364, 365
Smith, H. E., 12, 438
Smith, H. I., 436
Smith, I. M., 14
Smith, J. E., 21, 298, 300, 301, 302
Smith, L. H., 18, 265, 268, 269, 271, 425
Smith, L. M., 431
Smith, O. H., 209, 388, 393, 394
Smith, W. C., 34, 242
Smith, W. H., 23, 209, 264, 265, 269, 271, 426
Snider, H. J., 27, 266, 426
Snodgrass, J. M., 20, 402, 403
Snow, C. M., 38
Snyder, Mary J., 430
Solomon, Meyer, 35, 231
Soto, R. A., 28, 404, 407
Sperry, J. A., 25, 281, 282
Spindler, G. W., 27, 340, 341
Stanley, T. B., 27, 327, 331
Stanton, Margaret B., 25, 255
Stanton, W. M., 28, 274, 275, 277
Staples, O. E., 14
Starr, S. P., 37, 250
Stebbins, Joel, 19, 280, 281
Steele, D. A. K., 13, 16, 32, 239, 240, 241
Steffan, R. C., 34, 232, 233
Stevens, F. L., 19, 282, 284, 285
Stevens, Grace E., 24, 355
Stevens, Sara E., 30
Steward, R. K., 22, 310
Stewart, H. W., 22, 265, 267, 311, 313, 425
Stidston, R. O., 26, 327
Stigman, C. W., 36, 239
Stipes, J. W., 11
Stoek, H. H., 18, 376, 377, 378, 436, 438
Stone, F. L., 36, 234
Storer, James, 28, 337
Story, R. M., 25, 209, 396, 397, 399
Strouse, Solomon, 35, 228
Stull, R. T., 19, 285, 286, 287
Sunny, B. E., 12
Sutcliffe, E. G., 26, 327
Swatek, E. P., 37, 249
Swift, R. B., 12
Talbot, A. N., 17, 373, 374, 375, 378, 379, 432
Tanner, F. W., 432
Tanner, J. M., 12
Taylor, E. H., 28, 288
Taylor, Lillian E., 34, 242, 243
Taylor, S. C., 27, 287
Theobald, Georgiana D., 36, 235
Thomas, N. G., 37, 252
Thompson, C. M., 23, 209, 311, 312, 314, 317
Thompson, G. F., 33, 239, 240
Thompson, J. G., 23, 311, 313, 317
Thorp, Lambert, 24, 287
Tice, Frederick, 32, 228, 230
Tieje, A. J., 327
Tieje, R. E., 25, 209, 327, 332, 334
Tippitt, R. W., 28, 288
Titcomb, W. C., 21, 274, 276, 277
Torgerson, E. F., 426
Torrance, F. C., 25, 369, 370, 371
Torrance, Mary, 31, 361
Townsend, E. J., 18, 364, 365, 366, 367
Townsend, L. L., 24, 379, 380
Tracy, Grover, 36, 37, 237, 238, 253
Treat, Edna A., 24, 379, 380
Trelease, William, 19, 39, 209, 282, 283, 284, 285
Trevett, J. R., 9, 10
Troy, Zeliaette, 30
Turner, Frank, 426
Tuttle, G. P., 14
Upp, R. W., 37
Van Alstine, Ernest, 425
Van Cleave, H. J., 24, 411, 412
Van Kleeck, J. R., 27, 351
Valentine, H. D., 28, 287
Vallance, Alexander, 25, 373
Vaughan, J. C., 12
Vernier, C. G., 18, 358, 359, 360
Vreeland, Frederick, 35, 235
Vollweiler, E. H., 29, 288
Waggoner, H. D., 27, 282
Wahlin, G. E., 22, 209, 364, 367, 368, 369
Waldo, E. H., 20, 324, 325, 326
Walworth, E. H., 27, 266, 426
Ward, H. B., 18, 39, 411, 413, 414
Warner, E. H., 26, 209, 388, 393
Warnock, A. R., 14, 39, 331
Wascher, F. M. W., 425
Washburn, E. W., 19, 287, 292, 294, 296
Washburn, F. L., 12
Waterfall, H. W., 24, 369, 370
Watkins, O. S., 22, 350, 351, 352, 427
Watson, Florence E., 9, 10
Watson, F. R., 20, 39, 209, 388, 389, 390, 393, 394
Weatherly, U. G., 209, 408, 410
Weatherston, John, 33, 228, 230

- Weber, H. C. P., 21, 209, 287, 289, 295, 296, 297
 Webster, F. D., 15, 19, 375, 376
 Weeter, H. M., 27, 308, 426
 Weiland, H. J., 28, 287
 Welker, W. H., 34, 37, 237, 238, 239, 252, 253
 Wells, N. A., 17, 274, 275, 277
 deWerff, H. A., 426
 Wesenberg, T. G., 27, 404, 407
 West, W. B., 35, 235
 Westhaefer, T. O., 29, 288
 Weston, N. A., 16, 20, 311, 312
 Wetmore, Mary M., 23, 278, 279
 Wheatcroft, J. C., 11
 Wheeler, H. C., 425
 Wheeler, Ruth, 22, 355, 358
 Whicher, G. F., 24, 327, 332
 Whipple, G. M., 20, 318, 319, 320, 321
 Whisenand, J. W., 28, 269, 426
 Whitchurch, J. E., 425
 White, J. M., 14, 17, 274
 White, Mary B., 34, 234
 White, Peter, 435
 Whitford, R. C., 25, 327
 Whitling, A. L., 22, 265, 267, 268, 269, 425
 Whitmer, L. W., 36, 235
 Wichers, Edward, 23, 287
 Wildman, E. A., 27, 387
 Wiley, C. C., 22, 298, 300, 303
 Willard, A. C., 21, 369, 370, 371
 Williams, A. E., 25, 285, 286
 Williams, Anna W., 25, 209, 355, 356, 357
 Williams, C. A., 23, 340, 341, 342, 343
 Williams, E. H., 22, 209, 388, 389, 390, 391, 393, 394
 Williams, Margaret, 30
 Williams, R. Y., 19, 376, 438
 Williams, W. I., 37, 250
 Williamson, C. S., 32, 223, 229, 230
 Wilson, F. S., 35, 229, 230
 Wilson, H. H., 36
 Wilson, L. A., 369, 428
 Wilson, W. H., 28, 364
 Wilson, W. M., 21, 298, 299, 303
 Windsor, P. L., 15, 16, 18, 30, 39, 360, 361, 362
 Winslow, J. C., 28, 281, 282
 Wolfe, W. S., 25, 274, 276, 278
 Wood, C. A., 32, 234, 235
 Woods, B. L. T., 35, 242
 Woolbert, C. H., 22, 327, 332
 Woolston, W. J., 34, 234
 Wright, F. J., 35, 229
 Wyeth, Ola M., 31, 361

Yapp, W. W., 27, 308, 426
 Yarros, Rachelle S., 33, 232, 233
 Yensen, T. D., 428
 Yoke, J. J., 26, 269, 270, 426
 Young, E. G., 428

Zeis, H. C., 27, 364
 Zeitlin, Jacob, 22, 327, 329, 330, 331
 Zeleny, Charles, 20, 411, 412, 413, 414
 Zucker, A. E., 27, 340, 341
 Zuppke, R. C., 209, 386, 387

GENERAL INDEX

(For Index of Names, see page 555)

- Abstracting**, course in, 331
Acacia, 112
Accountancy
Board of Examiners in, 48, 435
course in, 136
courses, 264
faculty, 264
Accredited schools
admission from, 74
committee on, 39
list of, 77
Acboth, 112
Acoustics, course in, 380
Acting Regent appointed, 47
Actuarial theory, course in, 366
Adams fund, 48
Adelphic Literary Society, 110
Administration, 65
Council of, 13
officers of, 13
Admission, 69
advanced standing, to, 76
certificate, by, 74
examination, by, 73
foreign students, 75
special requirements, 76
special students, 75
subjects accepted for, 85
subjects prescribed, 70
Summer Session, 210
transfer of credits, by, 75
units, number required, 70
(See also under separate colleges and subjects.)
Advanced degrees, 189
Advanced standing
admission to, 76
(See also under separate colleges and subjects.)
Advertising, course in, 315
Adviser, community, 422
Agricultural Building, 53
Agricultural Club, 112
Agricultural co-operation, course in, 313
Agricultural Experiment Station
advisory board, 12
established, 48, 428
laboratories, 53
staff, 425
Agricultural extension, 176, 419
courses, 265
faculty, 265
lectures, 105
Agricultural scholarships, 176
Agriculture
admission, for, 85
general course in, 180
Summer Session, 264
two weeks' course, 186
Agriculture, College of, 175
administrative officers, 15
admission, 69, 76
to graduate work, 175
agronomy, 176
animal husbandry, 177
buildings, 53
clubs, 112
collections, 61
courses offered, 67
floriculture, 182
general, 180
household science, 183
landscape gardening, 184
teachers, 186
degree of B. S., 185
degrees conferred, 1914, 522
departments, 176
extension work, 176
facilities, 176
fees, 118
general statement, 175
graduation, requirements for, 180, 185
horticulture, 178
lectures, 105
methods, 176
reading room, 63
scholarships, 114
special students, 75
summary of courses, 67
veterinary science, 180
Agronomy
building, 53
course, 265
faculty, 265
lectures, 106
scope of work, 176
Algebra, admission, for, 85
Alethenai Literary Society, 110
Alpha Chi Omega, 112
Alpha Chi Sigma, 111
Alpha Delta Phi, 112
Alpha Delta Pi, 112
Alpha Delta Sigma, 111
Alpha Gamma Rho, 111
Alpha Kappa Psi, 112
Alpha Omicron Pi, 112
Alpha Rho Chi, 111
Alpha Sigma Phi, 112
Alpha Tau Omega, 112
Alpha Xi Delta, 112
Alpha Zeta, 111
Alumni Associations, 109
directory of, 552
American Academy, prize in architecture, 96
American Chemical Society, 112
American Institute of Electrical Engineers, 112
American Institute of Mining Engineers, 112
American Law Books Company, prize, 217
American literature, courses in, 328, 330, 333
American Society of Mechanical Engineers, 112
Anatomy, course in, 225
applied and surgical, 226
dental, 252, 253
Animal Husbandry
cattle feeding plant, 54
courses, 269
faculty, 269
lectures, 106
scope of work, 177
Animal nutrition, courses in, 271, 273, 291, 295
Applied Mechanics, Laboratory of, 52, 155
Appointment
graduates, committee on, 39
teachers, committee on, 202
Archaeology and Art, Classical, Museum of, 54

- Architectural Club, 112
 Architectural engineering, course in, 160
 Architecture
 American Academy prize, 96
 collection, 60
 course, 159
 courses, 274
 description of department, 152
 exhibitions, 100
 faculty, 274
 lectures, 104
 library, 63
 Llewellyn prize, 96
 Plym fellowship, 96
 Arkansas Club, 112
 Armory, 55
 new, 55, 56
 Aron collection, 63
 Art and design
 courses, 278
 exhibits, 100
 faculty, 278
 Summer Session, 280
 Art collections, 58
 Art exhibit, 100
 Assaying, course in, 292
 Assistant professors, list of, 20
 Assistants
 list of, 26
 graduate, list of, 28
 military science, in, list of, 29
 student, list of, 29
 Associate professors, list of, 20
 Associates, list of, 21
 Associations, societies, and clubs, 109
 Astronomical Observatory, 51
 Astronomy
 admission, for, 85
 courses, 280
 faculty, 280
 lectures, 101
 Athenian Literary Society, 110
 Athletics, committee on, 39
 Attendance, committees on, 39
 Auditing, committee for student organiza-
 tions and publications, 39
 courses in, 317, 318
 Auditorium, 55
 Authority to confer degrees, 46
 Auxiliary Scientific Bureaus, 423

Baccalaureate degrees, 1914, 522
 Bachelor's degree, 92
 Bacteriology
 courses in, 236, 249, 281
 dairy, courses in, 309, 310
 Band, military, 112, 200
 music, courses in, 383
 Banking
 course in, 135
 courses, 282, 312
 Barnum, M. K., and M. H., gift to collec-
 tion, 60
 Baseball, course in, 387
 Basketball, course in, 387
 Beef Cattle, Building, 54
 courses in, 271
 Beneficiary aid, 116
 Benefit fund, hospital students, committee on,
 39
 Beta Gamma Sigma, 111
 Beta Theta Pi, 112
 Biblical literature, course in, 329
 Biology courses, 282
 B'nai B'rith prizes, 95
 Board and rooms, 122
 Board of Examiners in Accountancy, 48
 staff, 435
 Board of Trustees
 committees, 10
 officers, 9
 organization, 45
 reorganizations, 46
 Bolter, Andreas, gift to collection, 59
 Bondurant Bible lectures, 99
 Bookkeeping, admission, for, 86
 Botanical Club, 112
 Botany
 admission, for, 86
 Annex, 51
 courses, 282
 Summer Session, in, 285
 faculty, 282
 herbarium, 59
 lectures, 101
 Breeding, stock, courses in, 270, 271, 272,
 273, 274
 Brendel, Dr. F., gift to herbarium, 59
 Bridges, courses in, 298, 299, 302, 303
 Bryan prize, 95
 Buildings
 Chicago departments, 57
 Urbana departments, 50
 for general University use, 55
 Business administration
 courses established, 48
 courses, 48, 68
 director, 16
 extension work, 420
 lectures, 101
 Business organization, course in, 312
 Business law, admission, for, 86
 Business writing, courses in, 331

Calendar, 1914-15-16.
 General, 4
 University, 5
 Callaghan & Company, prize, 217
 Calorimetry, courses in, 296
 Campus and environs, maps of, *front insert*
 Catalog, committee on, 39
 Cement
 courses in, 286, 287, 298, 301
 laboratory, 153
 Central Debating Circuit of America, 95
 Ceramic Club, 112
 Ceramic engineering, course in, 147
 Ceramics
 Advisory Board, 11
 course in, 147
 courses, 285
 extension work, 420
 faculty, 285
 laboratory, 51, 52
 lectures, 102
 scholarships, 114
 Cercle Français, 112
 Certificate, admission by, 74
 Champaign-Urbana, 43
 Change fee, 118
 Chase, Mrs. Agnes, gift to herbarium, 59
 Cheese making, course in, 309
 Chemical Club, 112
 Chemical engineering, course in, 146
 Chemical Laboratory, 51
 Chemistry
 admission, for, 86
 course in, 146
 courses, 287
 dental, 253
 faculty, 287
 lectures, 102
 laboratory, 51
 library, 63
 physiological chemistry, medical course, 238
 Summer Session, 296
 Chi Beta, 112
 Chi Delta, 112
 Chi Omega, 112
 Chi Phi, 112
 Chi Psi, 112
 Chinese Students' Club, 112
 Choral and Orchestral Society, 112
 Christian Associations, 110
 lectures, 99
Círculo Español, 112
 Civic and commercial secretaries, course for,
 135

- Civic design, courses, 350, 354
- Civics, admission, for, 86
- Civil Engineering
 - collections, 61
 - course in, 170
 - courses, 298
 - equipment, 152
 - faculty, 298
 - lectures, 104
 - railway, course in, 170
- Civil Engineers' Club, 112
- Class of 1895 loan fund, 116
- Classical Club, 112
- Classical Archeology and Art, Museum of, 58
- Classics
 - collections, 62, 63
 - courses, 303
 - faculty, 303
 - honors, 304
 - major, 304
 - seminar library, 63
- Clinical facilities, College of Medicine, 218
- Clothing, courses in, 356, 358
- Clubs and Societies, 109
- Clubs
 - auxiliary to courses of study, 112
 - list of, 112
- Coaching, summer courses in, 212
- Coal, Investigations, Co-operative, 436
 - chemistry of, courses in, 293, 296
- Collections, Museums and, 58
 - (See also under separate colleges and courses)
- College assemblies, lectures before, 103
- College Entrance Examination Board, 73
- College Publications, collection, 62
- Colleges and schools, list of, 15
- Combined courses
 - arts and engineering, 148
 - arts and law, 214
- Commerce, School of
 - building, 50
 - collection, 59
 - courses in, see economics
 - reading room, 63
- Commercial and civic secretaries, course for, 135
- Commercial Club, 112
- Commercial geography, admission, for, 186
- Commercial teachers, course for, 139
- Commercial law, courses, 307
- Committees, standing
 - of the Council, 39
 - of the Faculty, 39
 - of the Senate, 39
- Community adviser, 422
- Competitions and honors, 94
- Composition, English, admission for, 87
- Comptroller, Office of, 14
- Concrete construction, farm, course in, 268
- Concrete, courses in, 298, 301, 302
- Conditioned freshmen, 70
- Contents, list of, 3
- Contests and prizes, military, 96
- Convocations, 98
- Co-operation, agricultural, course in, 313
- Corporations, courses in, 312
- Cosmopolitan Club, 110
- Cost accounting, course in, 318
- Council of Administration
 - committees, 39
 - composition and functions, 65
- Country life problems, course in, 265
- County scholarships, 113
- Courses
 - departments and, 65
 - description of, 263
 - Summer Session, 263
- Creamery management, course in, 308
- Culver Club, 112
- Curators, Museum, list of, 15
- Dairy barns, experimental, 54
- Dairy husbandry
 - courses, 308
 - faculty, 308
 - scope of work, 178
- Danish, old, course in, 345
- Deans and Directors, duties of, 65
- Debating and oratory, honors and competi-
tions in, 94
- Degrees
 - authority to confer, 46
 - bachelor's, 93
 - conferred, 1914, 522
 - first, list of, 92
 - graduate, 189
 - honor, the, 149
 - requirements, for
 - A. B., 93, 125
 - A. E., 190
 - A. M., 189
 - B. L. S., 93, 197
 - B. Mus., 93, 198
 - B. S., 93, 125, 159, 180, 223
 - C. E., 190
 - D. D. S., 248
 - E. E., 190
 - J. D., 216
 - LL. B., 93, 215
 - M. Arch., 190
 - M. D., 93, 223
 - M. E., 190
 - M. S., 189
 - Ph. C., 93, 257
 - Ph. D., 191
 - Ph. G., 93, 257
- Delta Gamma, 112
- Delta Kappa Epsilon, 112
- Delta Omega, 112
- Delta Sigma Rho, 111
- Delta Tau Delta, 112
- Delta Upsilon, 112
- Dentistry, College of, 246
 - administrative officers, 16
 - admission, 69, 247
 - advanced standing, 247
 - building, 57
 - course in, 68, 254
 - summary of, 254
 - courses, 249
 - degrees conferred, 1914, 531
 - discontinued, 49
 - established, 48
 - faculty, 249
 - fees, 120, 255
 - graduation, requirements for, 248
 - infirmary, 246
 - laboratories, 246
 - length of course, 248
 - library, 246
 - location, 246
 - method of instruction, 248
 - museum, 246
 - reopened, 49
 - students, list of, 517
- Departmental honorary societies, 111
- Departments and courses, summary of, 65
- Dermatology, courses in, 227
- Description of courses, 263
 - explanation of, 263
 - Summer Session, 263
- Deutscher Verein, 112
- Diploma fees, 118
- Directory of Alumni Associations, 552
- Directors and Deans, duties of, 65
- Discipline, committee on, 39
- Dittenberger collection of classics, 62
- Dixie Club, 112
- Doctor of Philosophy, degree of, 191
 - degrees conferred, 1914, 534
- Domestic Science, admission, for, 86
- Drainage, course in, 266, 268
- Drawing
 - admission, for, 86
 - architectural, courses in, 275, 277
 - courses in, 278, 279, 280, 364
 - freehand, courses in, 275

- general engineering,
 courses in, 310
 faculty, 310
 Summer Session, course, 310
 Draper, Dr. A. S., President, 47
 Dziatzko collection of library economy, 42
- Easterners' Club, 112**
 Ecological Laboratory, 51
 Economics
 admission, for, 87
 courses, 311
 faculty, 311
 seminar library, 63
 Summer Session, in, 317
Education
 collection, 59
 courses in, 68, 319
 faculty, 313
 graduate work in, 201
 honors, 318
 lectures, 102
 seminar library, 63
 Summer Session, in, 321
Education, School of
 administrative officers, 16
 course in, 68
 established, 48
 general statement, 201
 officers of, 16
 publications of, 202
Educational policy, committee on, 39
Egyptian Club, 112
Electrical engineering
 collection, 61
 course in, 164, 165
 courses in, 324
 equipment, 153
 faculty, 324
 laboratory, 52
 railway, course in, 171
 Society, 112
Embryology, courses in, 225, 226, 252
Enamels, courses in, 287
Endowment, additional Federal, 46
Engineering
 advanced degrees in, 190
 and Arts, combined course, 148
 courses credited in College of Liberal Arts
 and Sciences, 128
 professional degrees conferred, 1914, 534
 summer reading in, 158
Engineering, College of
 administrative officers, 15
 admission, 69, 76, 151
 buildings, 52
 clubs, 112
 collections, 60
 course in
 architectural engineering, 160, 161
 architecture, 159
 civil engineering, 162
 electrical engineering, 165, 166
 mechanical engineering, 165, 166
 mining engineering, 167, 168
 municipal and sanitary engineering, 168,
 169
 railway engineering
 civil, 170, 171
 electrical, 171, 172
 mechanical, 173
 courses and degrees, 159
 degrees, 159, 190
 degrees conferred, 1914, 522
 departments, 151
 electives, 158
 fees, 118
 general statement, 151
 graduation requirements, for, 159
 inspection trips, 159
 laboratories, 57
 lectures, 103, 159
 for freshmen, 159
 special students, 75
 summary of courses, 67
Engineering Experiment Station, 428
 advisory board, 11
 established, 48, 435
 research fellowships, 194
 staff, 428
Engineering Hall, 52
Engines, heat, course in, 369
 gas, course in, 370
England, economic history of, 312
English
 course in, 328
 faculty, 327
 honors, 328
 lectures, 102
 major, 328
 seminar library, 63
 Summer Session, in, 332
**English composition and rhetoric, admission,
 for, 87**
English Journal Club, 112
English literature, for admission, 87
Entertainments, 100
Entomologists, Office of State, 48, 431
 staff, 431
Entomology
 building, 51
 collections, 59
 courses, 334
 faculty, 334
 Summer Session, in, 336
Entrance requirements
 (See admission)
Equipment, description of, 50
 (See also under separate colleges and sub-
 jects)
Esthetics, course in, 385
Eta Kappa Nu, 111
Ethics, courses in, 385, 386
Europe, economic history, course in, 313
European culture, museum of, 59
Evolution, course in, 284
Examinations
 admission by, 73
 College Entrance Board of, 71
 entrance, 71
 program of, 77, 78
 rhetoric I, in, 75
Examiners in Accountancy, Board of, 48, 435
Exchange lectures, 98
Exercises and lectures, 98
Exhibitions, 100
Expenses, (Urbana)
 and fees, 118
 average annual, 122
Experiment Station
 Agricultural, established, 46, 425
 Engineering, established, 48, 428
Extension, University, 419
 Agriculture, 419
 business, 420
 ceramics, 420
 education, 420
 highway engineering, 420
 household science, 421
- Faculty**
 committees of, 39
 duties and composition of, 65
 (See officers of instruction)
Farm,
 accounting, courses in, 318
 buildings, courses in, 266
 machinery, courses in, 266, 268
 management, courses in, 274
 mechanics, courses in, 264, 268
Farm Mechanics Building, 53
Farmers' Hall of Fame, 49
Federal endowment, 45
 additional, 46
Feeding, courses in
 farm animals, 264
 stock, 270

- Fees
 general, 118
 laboratory, 120
 Fellows, graduate, list of, 536
 Fellowships, 193
 Fertilizers and soils, course in, 264
 Final honors, 94
 Fireproof construction, course in, 278
 First degrees, list of, 93
 Floriculture
 course, 182
 courses in, 350, 351, 352, 354, 355
 greenhouses, 54
 Flower exhibit, 100
 Food analysis, course in, 289, 297
 Food, courses in, 355, 356, 358
 Football, course in, 387
 Forestry, courses in, 352, 355
 Forge work, courses in, 371, 372
 Foreign students
 admission of, 75
 adviser to, 14
 Fraternities, list of, 112
 French
 admission, for, 88
 collection, 63
 courses, 405
 honors, 405
 major, 405
 Summer Session, in, 407
 Freshman honors, 150
 Freshman-sophomore debate, 95
 Freshman, conditioned, 70
 Fruit culture, courses in, 351, 352, 355
 Fruit exhibit, 100
 Fuels, courses in, 293
 Funds, loan, committee on, 39

Gamma Alpha, 111
 Gamma Phi Beta, 112
 Garden design, course in, 353
 Gardening, course in, 264
 Gases, chemistry of, courses in, 292
 General administrative officers, 13
 General Assembly scholarships, 113
 General business course, 134
 General exercises and lectures, 98
 General information, 41
 General organizations, 109
 General University Buildings, 55
 Genetics, courses in, 264, 273, 274
 Geography
 commercial, admission for, 86
 physical, admission for, 90
 Geological Journal Club, 112
 Geological Survey, State, 48, 433
 library of, 62
 staff, 433
 Geology
 admission, for, 88
 collections, 59
 courses, 337
 faculty, 337
 Geometry, descriptive
 courses in, 310, 364
 Geometry, for admission, 88
 German
 admission, for, 88
 collections, 62
 courses, 341
 faculty, 340
 honors, 341
 Summer Session, 344
 Geriatrics, courses in, 340
 Girls' Pan Hellenic Association, 112
 Glass, course in, 286, 287
 Glass blowing, course in, 293
 Glazes, courses in, 286, 287
 Glee and Mandolin Club, 112
 Gold Medal, University, 96
 Government, University, 65
 Graduate assistants, list of, 23
 Graduate Club, 194
 loan fund, 117

 Graduate in pharmacy, degree of, 257
 Graduate School, 187
 administrative officers, 15
 admission, 187
 character of work, 189
 club, 194
 degrees conferred, 1914, 532
 Doctor of Philosophy, degree of, 191
 established, 47, 49
 executive faculty, 187
 fellows and scholars, 1914, 536
 fellowships, 193
 history, 187
 Masters' degrees, 189
 organization, 187
 professional degrees in engineering, 190
 registration, 188
 scholarships, 193
 separate faculty organized, 49
 students, list of, 441
 summary of courses, 67
 Summer Session courses, 211
 theses, 192
 Graduates, appointment of, committee on, 39
 Graduation, requirements for, 92
 Agriculture, 180
 Dentistry, 248
 Engineering, 159
 Law, 215
 Liberal Arts and Sciences, 126
 Library Science, 197
 Medicine, 223
 Music, 198
 Pharmacy, 258
 Graduation and first degrees, 92
 Graphic statics, courses in, 276, 277, 278
 Greek
 admission, for, 89
 courses in, 304
 faculty, 303
 honors, 304
 major, 304
 Greek letter societies, list of, 111, 112
 Greenhouse construction, course in, 351
 Greenhouses
 floriculture, 54
 horticulture, 54
 vegetable and plant breeding, 54
 Gregorian Literary Society, 110
 Gregory, Dr. J. M., Regent, 45
 Gröber collection in Romance languages, 63
 Grounds and buildings (Urbana), 50
 Gymnasium
 men's, 55
 women's, 56
 (See physical training)
 Gynecology, courses in, 234

Hazelton prize medal, 96
 Health administration, School, courses in, 323
 Heat and power plant, central, 56
 Heating, courses in, 370, 371
 Helmet, 112
 Heredity, courses in, 284, 413
 Hertz collection, 60
 Heyne collection of German philology and literature, 62, 63
 H. H. Club, 112
 Hibbard, W. G., gift to museum, 58
 High school agriculture, course in, 265
 High school curriculums, course in, 320, 323
 High School Visitor, Office of, 14
 High schools, accredited, list of, 77
 Highway engineering, university extension, 420
 Histology
 medical, courses in, 225
 dental, 252
 History
 admission, for, 89
 Club, 112
 courses, 346
 faculty, 345
 honors, 346

- seminar library, 63
- Summer Session courses, 349
- University, of the 45
- western, Mason library of, 63
- Honorary Societies, 111
- Honor degree, 149
- Honors
 - competitions and, 94
 - debating and oratory, 94
 - final, 94
 - military, list of, 540
 - preliminary, 94
 - special, 94
 - University, list of, 538
- Horses, courses in, 270, 271
- Horticultural Club, 112
- Horticulture
 - building, 54
 - courses, 351
 - faculty, 350
 - greenhouses, 54
 - lectures, 134
 - scope of work, 178
- Hospital benefit fund, students', 109
- committee on, 39
- Household science
 - Agriculture, in College of, 179, 183
 - Club, 112
 - course in, 142, 183
 - courses, 355
 - faculty, 355
 - lectures, 103, 107
 - Liberal Arts and Sciences, in College of, 142
- Hydraulics, courses in, 373, 374, 375
- Hygiene, courses in, 228
- Hygiene, School, course in, 320, 322
- Ice cream**, course in, 308
- Illinois Farmers' Hall of Fame, 99
- Illinois, government of, course in, 396, 399
- Illinois, history of, course in, 347
- Illinois Municipal League, lectures, 99
- Illinois Union, 109
- Illiola Literary Society, 110
- Ilus, 112
- Incidental fee, 118
- Incorporation of the University, 45
- Indo-European philology, course in, 307
- Industrial education, course in, 363
- Industrial history, courses in, 314, 317
- Industrial organization, courses in, 313, 314, 316, 217
- Industrial plant design, course in, 371
- Infirmity, College of Dentistry, 246
- Instructors, list of, 34
- Institutional accounting, course in, 318
- Instruction, officers of, 17
- Insurance, course in, 136
- courses in, 315
- Intercollegiate debates, 1913-14, 551
- Intercollegiate Peace Association, 95
- Interfraternity organizations, 112
- Interscholastic oratorical prize, 95
- Intersociety declamation contest, 95
- Investment, mathematics of, course in, 366
- Ionian Literary Society, 110
- Iris, 112
- Irish, old, course in, 330
- Italian, courses, 407
- Ivrim, 112
- Jamesonian Literary Society**, 110
- Journalism, course in, 140
- courses in, 331
- Jurisprudence, courses in,
 - medical, 228
 - dental, 253
- Kansas Club**, 112
- Kappa Alpha Theta, 112
- Kappa Delta Pi, 111
- Kappa Kappa Gamma, 112
- Kappa Sigma, 112
- Karsten collection, 63
- Komenian Society, 112
- Labor problems**, courses in, 313, 317
- Laboratories
 - first opened, 46
 - list and location of, 57
 - research, 58
- Laboratory fees, 120
- Lambkins' Club, 112
- Land Grant, Morrill, 45
- Landscape gardening
 - club, 112
 - courses in, 352, 353, 354
- Laryngology, courses in, 243
- Late registration fee, 118
- Latin
 - admission, for, 89
 - courses in, 305
 - faculty, 303
 - honors, 304
 - major, 304
 - Summer Session courses, 307
- Law, College of, 213
 - administrative officers, 15
 - admission, 69, 213
 - to State examination, 216
 - advanced standing, 214
 - advisory board, 11
 - bar examinations, 216
 - building, 55
 - courses, 68, 359
 - combined with Liberal Arts and Sciences, 141, 214
 - degree of LL.B., for, 216
 - elementary, 314
 - preparatory, 214
 - degrees, 215
 - conferred, 1914, 530
 - entrance requirements, 213
 - established, 47, 48
 - faculty, 358
 - fees, 119
 - general statement, 213
 - graduation, requirements for, 215
 - instruction, 214
 - lectures, 107, 215
 - library, 215
 - moot court, 215
 - privileges of students, 217
 - scholarship prizes, 217
 - special students, 213
 - theses, 216
- Law, elementary, course in, 314
- Lectures and general exercises, 98
- Lecturers, special, list of, 23
- Liberal Arts and Sciences, College of, 125
 - administrative officers, 15
 - admission, 69, 76
 - arrangement of courses, 131
 - bachelor's theses, 131
 - buildings, 50
 - business courses, 133
 - clubs, 112
 - collections, 58
 - combined courses
 - arts and engineering, 148
 - arts and law, 141, 214
 - arts and medicine, 144
 - courses
 - accountancy, 136
 - banking, 135
 - business administration, 153
 - ceramic engineering, 148
 - ceramics, 147
 - chemical engineering, 147
 - chemistry, 146
 - commercial and civic secretaries, for, 135
 - commercial teachers, for, 139
 - farm organization and management, 145
 - general business, 134
 - household science, 142
 - insurance, 136
 - journalism, 140
 - law, preparatory to, 141

- medicine, preparatory to, 144
 - railway administration, 133
 - teachers', preparatory, 149
- degrees conferred, 1914, 522
- electives, 133
- fees, 118
- graduation, requirements for, 126
- honor degree, 149
- honors, 149
- laboratories, 57
- lectures, 101
- majors, 127, 130
- museums, 59
- new requirements, 129
- organization and purpose, 49, 125
- special students, 126
- summary of courses, 66
- Libraries**
 - general description of, 62
 - hours of opening, 64
 - (See also under separate colleges and courses)
- Library**
 - administrative officers, 15
 - building, 55
 - club, 112
 - committee on, 39
 - regulations, 63
 - staff, 30
- Library School, 62, 195**
 - administrative officers, 16
 - admission, 69, 76, 195
 - advanced standing, 196
 - collections, 62
 - course, 197
 - preliminary, 196
 - courses, 361
 - degree of B.L.S., 197
 - degrees conferred, 1914, 530
 - entrance requirements, 195
 - faculty, 360
 - fees, 118
 - field work, 196
 - general statement, 195
 - gift to, 63
 - graduation, requirements for, 197
 - lectures, 107
 - library visits, 196
 - special requirements, 76
 - special students, 196
 - transferred to the University, 47
- Library Science**
 - course in, 197
 - courses in, 361
 - credited in College of Liberal Arts and Sciences, 129, 131
 - faculty, 360
 - Summer Session courses, 211, 363
- Lighting, electric, courses in, 326
- Lincoln Hall, 50
- Lincoln League, 112
- Listener's fee, 118
- Literary societies, 110
- Literature, English, admission, for, 87
- Lithology, collection, 59
- Llewellyn, J. C., prize, 96
- Loan funds**
 - Class of 1895, 116
 - committee on, 39
 - Graduate Club, 116
 - McKinley, W. B., 117
 - Snyder, Edward, 116
 - Strong, Henry, 117
- Local clubs, list of, 112
- Location of the University, 43
 - chosen, 45
- Locomotive Testing Laboratory, 52
- Logic, courses in, 385, 386
- Lunchroom management, courses in, 356, 358
- McKinley loan fund, 117**
- McWhorter, collection, 60
- Machine Shop, courses in, 364
- Manual training,
 - admission, 72, 90
 - Summer Session courses, 363
- Marketing, course in, 273
- Mask and Bauble, 112
- Mason Library of Western History, 63
- Masonry construction, courses in, 298, 301
- Master of Arts, degree of, 189
- Master of Science, degree of, 189
- Master's degree in engineering, 190
- Masters of Arts and Sciences, degrees conferred, 1914, 532
- Materia medica, courses in, 251
- Materials, strength of, courses in, 373, 374, 375
- Mathematical Club, 112
- Mathematics,
 - courses, 365
 - faculty, 364
 - seminar library, 63
 - Summer Session, courses, 368
- Matriculation fee, 118
- Ma-Wan-Da, 111
- Meats, course in, 271
- Mechanical engineering,
 - collections, 61
 - course in, 165
 - courses, 369
 - equipment, 154
 - exhibit, 100
 - faculty, 369
 - laboratory, 53
 - railway, course in, 173
 - society, 112
 - Summer Session courses, 372
- Mechanics, theoretical and applied,
 - courses, 373
 - equipment, 155
 - faculty, 373
 - Summer Session courses, 375
- Medical entomology, course in, 335
- Medicine, College of, 218**
 - administrative officers, 16
 - admission, 69, 219, 222
 - advanced standing, 221
 - affiliated with the University, 47
 - amphitheater clinics, 218
 - buildings, 57
 - clinical facilities, 218
 - collegiate year, 222
 - courses, 68, 225
 - combined arts and medical, 223, 243
 - preparatory, 144
 - degrees, 223
 - conferred, 1914, 531
 - discontinued, 49
 - dispensary clinics, 218
 - Doctor of Medicine, degree of, 223
 - entrance requirements, 219
 - equipment, 218
 - faculty, 32
 - fees and expenses, 119, 222
 - founded, 132
 - general statement, 225
 - graduation, requirements for, 223
 - hospital clinics, 218
 - library, Quine, 219
 - location, 218
 - microscopes, 223
 - optional work, 224
 - plan of instruction, 224
 - registration, 222
 - reopened, 49
 - scholarships, 223
 - senior courses, 245
 - sophomore courses, 244
 - special students, 221
 - students, list of, 514
 - summary of hours, 243
 - work required, 243
- Medicine, courses in,
 - experimental, 227
 - history of, 232
 - internal, 229
- Men, Dean of, 14
- Men's Gymnasium, 55
- Men's Pan-Hellenic Council, 112

- Metal Shops, 53
- Metallurgy, courses in, 289, 290, 292
- Meteorology, courses in, 338, 395
- Military Band, 112, 200
- Military contests and prizes, 96, 97
- Military honors, list of, 540
- Military science, 205
 - administrative officers, 15
 - courses in, 376
 - faculty, 375
 - scholarships in, 115
- Milk, courses in, 308, 309
- Mill Tax, 49
- Millinery, course in, 358
- Mine Rescue Station, established, 49, 436
 - staff, 436
- Mineralogy, collection of, 60
 - courses, 337
- Miners' and Mechanics' Institute, established, 49, 438
- Mining and Ceramics Laboratory, 52
- Mining engineering,
 - collections, 61
 - course in, 167, 168
 - courses in, 376
 - equipment, 155
 - faculty, 376
 - laboratory, 52
 - lectures, 104
 - society, 112
- Modern languages,
 - courses, 327, 340, 404
 - seminar library, 63
- Money, courses in, 312
- Morrill Land Grant, 45
- Moot court, law, 215
- Motorcycle Club, 112
- Motors, heat, courses in, 369, 370, 372
- Municipal and sanitary engineering
 - collection, 61
 - course in, 168
 - courses in, 378
 - faculty, 378
 - method of instruction, 156
- Museums and collections, 58
 - curators of, 15
 - gifts to,
 - Barnum, M. K. and M. H., 60
 - Bolter, Andreas, 59
 - Brendel, Dr. F., 59
 - Chase, Mrs. Agnes, 59
 - Hertzer, 60
 - Hibbard, W. G., 58
 - Karsten, Mrs. Eleanor G., 63
 - McWhorter, 60
 - Philadelphia Commercial Museum, 59
 - Schneck, Dr. J., 59
 - Snyder, Mrs. Mary S., 59
 - Worthen, A. H., 60
 - Worthen, Mrs. T. A., 60
- (See also under separate colleges and courses.)
- Music,
 - admission for, 90
 - courses credited in College of Liberal Arts and Sciences, 129, 131
- Music, psychology of, course in, 401
- Music,
 - School of, 198
 - administrative officers, 16
 - admission, 69
 - Bachelor of Music, degree of, 198
 - choral and orchestral society, 112, 200
 - clubs, 112
 - course in, 68, 198
 - public school music, 199
 - courses in, 380
 - degrees conferred, 1914, 522
 - established, 47
 - faculty, 379
 - fees, 118
 - general statements, 198
 - graduation, requirements for, 198
 - military band, 200
 - musical organizations, 300
 - Summer Session courses, 383
- Name of University changed, 46**
- Natural History,
 - Hall, 50
 - Library, 62, 63
 - State Laboratory of, 46, 430
 - museum of, 60
- Nelson fund, 48
- Neurology, courses in, 231
- Newspaper writing, courses in, 331, 332
- Northern Oratorical League, 95
- Norwegian, courses in, 344, 345
- Nutrition, animal, courses in, 271, 273, 291, 295
- Observatory, 51**
- Obstetrics, courses in, 233
- Office-building design, course in, 303
- Officers,
 - Administrative, 13
 - of instruction, 17
- Oil painting, courses in, 279
- Olericulture, courses, 350
- Opening of the University, 45
- Ophthalmology, courses in, 234
- Oral surgery, courses in, 249
- Oratorical Association, 112
- Oratory and debating, 94
- Orchard and garden, course in, 264
- Orcharding, courses in, 351, 355
- Orchestra music, courses in, 383
- Order of the Coif, 111
- Organ, courses in, 382
- Organizations and activities, student, committee on, 39
- Organizations and publications, student, auditing committee on, 39
- Organizations, general, 109
- Ornithology, courses in, 412
- Orthodontia, course in, 251
- Otology, courses in, 343
- Painting, courses in, 279**
- Paints, etc., chemistry of, courses in, 293
- Paleontology,
 - collection, 60
 - courses in, 337
- Pathology, courses in, 235, 249
- Pattern work, courses in, 364, 372
- Peabody, Dr. S. H., Regent, 46
- Pedagogy, Aron collection of, 63
- Pediatrics, courses in, 230
- Pen and Brush Club, 112
- Pharmaceutical Chemist, degree of, 257
- Pharmacology, courses in, 236
- Pharmacy, School of, 256
 - administrative officers, 16
 - admission, 69, 259
 - advisory board, 11
 - building, 57
 - courses in, 68, 257
 - degrees, 257
 - conferred, 1914, 532
 - entrance requirements, 258
 - equipment, 257
 - expenses, 259
 - faculty, 38
 - fees, 120, 259
 - founded, 47
 - graduation, requirements for, 258
 - history of, 256
 - library, 62, 257
 - location, 256
 - registration, state, 258
 - students, list of, 518
- Phi Alpha Delta, 111
- Phi Beta, 112
- Phi Beta Kappa, 111
 - prize, 111
- Phi Delta Phi, 111
- Phi Delta Psi, 112

- Phi Delta Theta, 112
 Phi Gamma Delta, 112
 Phi Kappa, 112
 Phi Kappa Psi, 112
 Phi Kappa Sigma, 112
 Phi Lambda Upsilon, 111
 Phi Sigma Kappa, 112
 Philological Club, 112
 Philology, comparative,
 courses in, 303, 307, 327, 340, 404
 Philomathean Literary Society, 110
 Philosophy,
 courses, 385
 faculty, 384
 honors, 384
 seminar library, 63
 Philadelphia Commercial Museum, gifts to
 collection, 59
 Photography, course in, 386
 Physical geography,
 admission, for, 90
 courses in, 337, 395
 Physical training
 for men,
 courses, 386
 faculty, 386
 for women,
 courses, 388
 faculty, 387
 scope of work, 207
 Summer Session courses, 387, 388
 Physics,
 admission, for, 90
 colloquium, 112
 courses, 389
 faculty, 388
 laboratory, 50, 156
 lectures, 105
 library, 63
 Summer Session courses, 393
 Physiography, see Physical geography
 Physiological chemistry, courses in, 291, 295
 Physiology,
 admission, for, 91
 courses in, 394
 dental, courses in, 252
 faculty, 394
 medical, courses in, 237
 Piano, courses in, 880
 Pi Beta Phi, 112
 Pi Omicron, 112
 Plane geometry, admission, for, 88
 Plant breeding, courses in, 268, 269
 Plant breeding and vegetable greenhouses,
 54
 Plants, chemistry of, course in, 295
 Playgrounds, course in, 387
 Summer Session course, 212
 Plym Fellowship in architecture, 96
 Political Science,
 club, 112
 courses in, 396
 faculty, 395
 honors, 396
 seminar library, 63
 Summer Session courses, 399
 Pomology, courses in, 351, 355
 Power and heating plant, central, 56
 Preliminary honors, 94
 Poultry, courses in, 264, 271
 President,
 Draper, Dr. A. S., 47
 duties of, 65
 elected, 48
 House of the, 56
 office of the, 14
 (See James, Edmund J., Index of Names.)
 Printing, courses in, 361, 362
 Prizes,
 American Law Book Co., 217
 Architecture, in, 96
 B'nai B'rith, 95
 Bryan, 95
 Callaghan & Co., 217
 Intercollegiate-Peace Association, 95
 Interscholastic oratorical, 95
 Law, 217
 Llewellyn, J. C., 96
 Military, 96
 Northern Oratorical League, 95
 Phi Beta Kappa, 111
 Plym, F. J., 96
 Professional degrees in engineering, 190
 Progress, students', committee on, 39
 Psi Delta, 112
 Psi Upsilon, 112
 Psychiatry, courses in, 232
 Psychology
 courses in, 400
 educational, 319, 321, 322, 333
 faculty, 399
 honors, 400
 laboratories, 400
 major and minor, 400
 seminar library, 63
 Public accounting, courses in, 318
 Public finance, course in, 312
 Public school music, course in, 383
 Public speaking, courses in, 332
 Public utilities, course in, 316
 Publications, student, committee on, 39
 Pumping station, 56
- Quine Library of Medicine, 219**
- Radiography, course in, 253**
 Railroad surveying, courses in, 300, 301
 Railway Club, 112
 Railway connections, 43
 Railway engineering,
 collections, 61
 course in, civil, 170
 electrical, 171
 mechanical, 173
 courses in, 402
 equipment, 157
 established, 48
 faculty, 402
 general statement, 157
 library, 63
 Railway Engineering and Administration,
 School of, 204
 courses in, 68, 138
 director of, 16
 general statement, 204
 Railway organization, courses in, 315, 316
 Rea scholarship, 223
 Reading, summer, College of Engineering,
 158
 Regent,
 acting, Dr. T. J. Burrill, 47
 Gregory, Dr. J. M., 45
 Peabody, Dr. S. H., 46
 Registrar, Office of, 14
 Registration, Summer Session, 210
 Religion, philosophy of, courses in, 385, 386
 Religious lectures, 99
 Reorganizations of Board of Trustees, 46
 Research fellowships,
 Engineering Experiment Station, 194
 Rhetoric,
 admission for, 87
 courses, 331
 special examination in, 75
 Summer Session courses, 333
 Rhinology, courses, 243
 Road laboratory, 153
 Road materials and construction, courses in,
 293, 300, 302, 303
 Romance Journal Club, 112
 Roentgenology, course in, 232
 Romance languages,
 courses, 405
 faculty, 404
 Grober, collection, 63
 Rooms and board, 122
 Rural credit, course in, 313
 Rural problems, course in, 408

- Salesmanship, course in, 315**
 Sanitation, building, courses in, 276, 277
 Sanskrit, courses in, 307
 Scabbard and Blade, 111
 Scandinavian,
 Club, 112
 courses in, 344
 Scarab, 111
 Schneek, Dr. J., gift to herbarium, 59
 Scholars, graduate, list, 536
 Scholarships,
 agricultural, 114
 ceramics, 114
 county, 113
 general assembly, 113
 graduate, 193
 household science, 114
 law, 218
 medicine, 223
 military, 115
 Summer Session, 211
 undergraduate, 113
 School reports, collection, 62
 Schools, accredited
 admission from, 74
 committee on, 39
 list of, 79
 Science, College of (see Liberal Arts and Sciences, College of)
 Science, domestic, admission, for, 86
 Science group, museums and collections, 59
 Scientific Bureaus, Auxiliary, 423
 Scientific laboratories, 57
 Scientific management, course in, 371
 Scribblers' Club, 112
 Seminar libraries, 63
 Senate, University, 17
 committees of, 39
 composition and duties, 65
 Sewanee Club, 112
 Sewerage, courses in, 378, 379
 Sheep Barn, 54
 Sheep, courses in, 270, 272
 Shomeez, 112
 Shop instruction, pioneer, 46
 Shop laboratories, 53
 Shop management, course in, 318
 Sigma Alpha Epsilon, 112
 Sigma Chi, 112
 Sigma Delta Chi, 111
 Sigma Kappa, 112
 Sigma Mu Rho, 111
 Sigma Nu, 112
 Sigma Pi, 112
 Sigma Tau, 111
 Sigma Xi, 111
 Snyder, Edward, loan fund, 116
 Snyder, Mrs. Mary S., gift to herbarium, 59
 Social sciences, courses, 311, 345, 395, 403
 Socialism, course in, 314
 Societies,
 departmental, 112
 Greek letter, 112
 honorary, 111
 literary, 110
 Sociology,
 courses, 408
 faculty, 408
 honors, 403
 seminar library, 63
 Summer Session courses, 410
 Soils, courses in, 264, 267, 269
 Solid geometry, admission, for, 83
 Sororities, list of, 112
 Spanish, admission, for, 91
 courses, 407
 Special examination fee, 118
 Special honors, 94
 Special students,
 admission, 75, 126, 196, 213, 221
 fees, 118
 Spherical geometry, admission, for, 83
 Standing committees of the faculty, 39
 Star lecture course, 100
 State Entomologist, Office of, 48, 431
 State Geological Survey, 48, 433
 State Laboratory of Natural History, 46, 430
 State registration in pharmacy, 258
 State University Debating League, 95
 State Water Survey, 47, 432
 Statistics, course in, 367
 Steam engineering, courses in, 369
 Steel building design, courses in, 299, 302, 303
 Stock farming, course in, 272
 Stock judging, courses in, 264, 270, 271
 Stock Pavilion, 53, 54
 Strong, Henry, loan fund, 117
 Student assistants, list of, 29
 Student organizations and activities, committee on, 39
 Student organizations and publications, auditing committee on, 39
 Student publications, committee on, 39
 Students, list of, 439
 Students' progress, committee on, 39
 Students, foreign, admission of, 75
 Students' societies, 109
 Subjects accepted for admission, 85
 Summaries,
 degrees, 550
 officers, 546
 students, 548
 Summarizing, course in, 331
 Summer reading, College of Engineering, 158
 Summer Session, 208
 admission, 210
 courses, 68. (See also under description of courses.)
 director, 16
 entertainments, 107
 faculty, 208
 fees, 210
 first, 47
 general statement, 210
 graduate work, 211
 lectures, 107
 library training, 211
 registration, 210
 scholarships, 211
 summary of courses, 68
 Supervising Architect, office of, 14
 Surgery, courses in, 240
 orthopedic, course, 241
 genito-urinary, courses, 242
 operative, courses, 242
 oral, courses, 249
 Surveying, courses in, 299, 300, 301
 Swedish, courses in, 344, 345
 Swimming, course in, 388
 Swine, courses in, 270, 272
Tariff, course in, 315
 Tau Beta Pi, 111
 Tau Kappa Epsilon, 112
 Tax, mill, 49
 Teachers, appointment of, committee, 39, 202
 Teachers' course in agriculture, 186
 Telegraphy, course in, 326
 Telephony, course in, 326
 Textiles, courses in, 356, 357, 353
 Theses, for bachelors' degrees, 129, 131
 requirements, 92
 Thesis collection, 62
 Theoretical and applied mechanics,
 collection, 61
 courses, 373
 faculty, 372
 Summer Session courses, 375
 Therapeutics, courses in, 236, 251
 Thermodynamics, courses in, 370, 373
 Theta Delta Chi, 112
 Track athletics, course in, 387
 Transfer of credits,
 admission by, 75
 Transportation Building, 53
 Transportation, railway, courses in, 315, 316
 Triangle, 111

- Trigonometry,
 admission for, 91
 course in, 365
 Summer Session course, 368
 Trustees, Board of, 9
 committees, 10
 officers, 9
 reorganizations of, 46
 Tuition fee, 118

U.I.A.S., 111
 Undergraduate degrees, 1914, 522
 scholarships, 113
 Undergraduates and professional students, list
 of, 439
 United States, financial history of, 312
 industrial history, 314, 317
 University bronze medals, 96
 University gold medal, 96
 University Hall, 50
 Urbana-Champaign, 43

Vahlen collection, 63
 Variation, courses in, 284, 413
 Vegetable and plant breeding greenhouses,
 54
 Vegetable gardening, courses in, 351, 355
 Ventilation, courses in, 370, 371
 Veterinary science, 180
 courses, 410
 faculty, 410
 Vice-President, Office of, 14
 Violin, courses in, 381
 Violoncello, courses in, 382
 Voice, courses in, 380, 381

Water chemistry, courses in, 290, 296
 Water colors, courses in, 279
 Water supply engineering, courses in, 378,
 379
 Water Survey, State, 47, 432
 Woman's Building, 56
 Woman's Congregational Board of Missions
 scholarship, 223
 Woman's Foreign Missionary Society schol-
 arship, 223
 Woman's League, 109
 conference, 99
 Women, Dean of, office of, 14
 Women first admitted, 46
 Wood Shop, 53
 Woodworking, courses in, 363, 364, 371
 Worthen, A. H., gift to collection, 60
 Worthen, Mrs. T. A., gift to museum, 60

Yo Ma, 112
 Y. M. C. A., 110
 lectures, 99
 Y. W. C. A., 110
 lectures, 99

Zeta Beta Tau, 112
 Zeta Psi, 112
 Zoological Club, 112
 Zoology,
 admission, for, 91
 collections, 60
 courses, 411
 faculty, 411
 Summer Session courses, 415



This book is given special protection for the reason indicated below:

Autograph	Giftbook
Association	Illustration
Condition	Miniature book
Cost	Original binding or covers
Edition	Presentation
Fine binding	Scarcity
Format	Subject

L82—2M—8.76—35382

UNIVERSITY OF ILLINOIS-URBANA



3 0112 046437494